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# Proceedings
# Junior College Workshop

Bailey Hall—School of Education

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University of Kansas

June 16-27, 1958

ED000969

# PROCEEDINGS

# JUNIOR COLLEGE WORKSHOP

UNIVERSITY OF KANSAS

JUNE 16-27, 1958

# FOREWORD

The first Kansas Junior College Workshop of its kind was held at the University of Kansas from June 16-27, 1958. The Workshop Consultant was Dr. Jesse P. Bogue, former Executive Secretary of the American Association of Junior Colleges. The forty-eight participants included superintendents of schools, junior college deans, and junior college teachers in Kansas.

The pages that follow carry eleven of the fifteen addresses given by guest lecturers. It was felt that the participants and others interested in the junior college would want copies of these addresses. We are most happy to present these to you in this volume.

K.E.A.

Workshop Consultant: Dr. Jesse P. Bogue, Past Executive Secretary of the American Association of Junior Colleges.

Workshop Coordinators: Dr. Kenneth E. Anderson, Dean School of Education, University of Kansas.

Dr. Karl D. Edwards, Associate Professor of Education and Assistant to the Dean, School of Education, University of Kansas.

# LECTURES

"Our Work Objectives" - Dr. Jesse P. Bogue, Workshop Consultant.

"A Look at Kansas Junior Colleges" - Adel F. Throckmorton, State Superintendent of Public Instruction, Kansas State Department of Public Instruction.

"The Problems of Financing Higher Education" - Chancellor Franklin D. Murphy, University of Kansas.

"Methods of Financing Junior Colleges in Other States" - Dr. Jesse P. Bogue, Workshop Consultant.

"Curriculum Development" - Dr. Cloy S. Hobson, Director Curriculum Laboratory, School of Education, University of Kansas.

"General Education" - Dr. George B. Smith, Dean of the University of Kansas.

"Developing a Program for the Gifted Student" - Dr. Francis H. Heller, Associate Dean of the College of Liberal Arts and Sciences, University of Kansas.

"Special and Technical Programs for the Terminal Student" - Dr. Jesse P. Bogue, Workshop Consultant.

"Problem of Articulating the Two-year Program with Four-year Schools" - Dean George R. Waggoner, Dean of the College of Liberal Arts and Sciences, University of Kansas.

"Admission Problems" - James K. Hitt, Director of Admissions and Registrar, University of Kansas.

"Methods and Techniques of Instruction at the Junior College Level" - Dr. Oscar M. Haugh, Professor of Education, School of Education, University of Kansas.

"Improvement of Instruction and In-Service Training" - Dr. Jesse P. Bogue, Workshop Consultant.

"Preparation of Junior College Teachers, and Standards for Accrediting Junior Colleges" - F. Floyd Herr, Director of Certification and Accreditation, Kansas State Department of Public Instruction.

"The Instructor's Part in a Good Guidance and Student Personnel Program" - Dr. E. Gordon Collister, Director Guidance Bureau, University of Kansas.

"Workshop Summary" - Dr. Jesse P. Bogue, Workshop Consultant.

"Enrollment and Cost Trends in Higher Education for Kansas" - Dr. Kenneth E. Anderson, Dean School of Education, University of Kansas.

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# OUR WORK OBJECTIVES

Jesse P. Bogue

The subject which you have assigned to me for this first session indicates at least two things: first, to get down to business with serious work, and second, to accomplish some things worthwhile. There is probably another aspect of this assignment, namely, consideration of methods and procedures by which we hope to accomplish these objectives.

I am pleased to have this opportunity to be in Kansas again in a workshop, and I am encouraged with the prospects of what we may do by reason of the success of a former workshop at Kansas State Teachers College at Pittsburg. A number of us met there a few years ago and as one tangible result we practically re-wrote the philosophy, aims and purposes, and general standards for the evaluation and accreditation of the junior colleges of this state. By and large, the results of that workshop were accepted and approved by your State Department of Public Instruction. They have been used for the purpose of re-examining your colleges for state accreditation.

One of the greatest values in the processes of evaluation of a college for accreditation, either by a state or a region, is the participation by the staff, faculty, trustees, and all other personnel concerned with the college. It is almost universally stated that strengths and weaknesses of the institution are discovered by those closest to the colleges who are in a position to take appropriate action. I do not know just what the experiences may have been for you in Kansas who have gone through the process of self-studies and state accreditation. From the reports which I have read from some of your colleges, I would say that the experiences must have been satisfactory. It is my hope that you have not only found the strong points of your colleges and that you have taken steps to give them further strength, but that you have specifically identified the weak places and have made progress in correcting them.

If we can, therefore, come to grips with some of our more critical current issues and problems, find directions for their solutions, and then put forth our best efforts for further progress on the home front by solving them, this workshop will be well worth our time. In this connection, I wish to express my thanks to the University of Kansas for its interest in this professional undertaking, to the Junior College Association of Kansas, and the State Department of Public Instruction for their full cooperation. It is most encouraging to work with these professional leadership groups for the purpose of improving education and educational opportunities for the youth and adults of this great state. If, in all of our deliberations, we can and will keep in mind the students, constantly ask ourselves what must be done for them, and how best to do it, I am confident that we shall move in the right direction to identify our problems and discover ways and means to solve them.

## The Workshop Program

You have in your hands the agenda for the five days for the first section of this workshop. The topics are clearly stated and cover a rather wide range. All of them are, however, important and deserve our best thinking and attention. As your consultant and as the one appointed to open the deliberations, I have taken the liberty of rearranging the subjects in the program on somewhat of a functional rather than a day to day chronological sequence.

First of all, as I view the program, we shall take a good hard look at the state as a whole insofar as we know it at this time. This will include the presentation of the present status of the junior colleges by your Superintendent of Public Instruction, Dr. Throckmorton. In connection with this status and in respect to the problems of financing junior colleges, we shall have the privilege of hearing and considering the subject of financing all of higher education in the state by Chancellor Murphy. It is my hope and expectation that our consideration of these problems may result in an objective survey regarding the needs of

Kansas for higher education and recommendations to the citizens and legislators who may take action in keeping with the needs of the state. In this connection, I believe that your Legislative Council has been authorized to make a study of your educational system, including college and university levels, and to report to the legislature with recommendations on organization, administration, the use of facilities and financing.

It is now considered, I believe, that an objective, scientific state survey is one of the first steps that should be undertaken in the determination of needs in education for all citizens within its borders. It is also the basis in facts on which we may formulate our best judgments for what must be done and by what means to do it. The President's Committee on Education beyond the High School set the stage which many states have followed in their surveys in that they are considering higher education under four aspects, namely, quantity, quality, diversity, and accessibility. It is not merely more education we need for more people, but better education for all who can profit by it, diversity in educational offerings for various kinds of talent, and accessibility of opportunity for appropriate education whereby the barriers of finance, geography, and motivation may be overcome as far as possible within the potential means of the state.

If, therefore, the final report of your Legislative Council does not go far enough, it may be possible that it will lay the foundation for the enactment of legislation for a thorough-going survey. Your work here may not only be highly important in bringing about this action; it could be decisive. And even if this one objective is reached, this workshop should have been a source of satisfaction to you and to the citizens of Kansas.

In relation to this problem of an equitable distribution of the tax dollar for all of higher education, I shall have the privilege of presenting for your attention tomorrow the methods of financing junior colleges in the several states, other than Kansas. While you may not wish to do what any other state is doing, nor pursue the methods by which it is doing it, you will have, I hope, the facts in each case for comparative purposes, and perhaps receive some inspiration to go and do likewise what appears to be required in your own state. One of my former professors of philosophy was always saying that we need to see life steadily and to see it whole. I wish to apply this observation to Kansas and to all other states in respect to education: We need to view the state steadily and to view it as a whole in the best interests of all its citizens. Probably Superintendent Throckmorton, Chancellor Murphy and I may give all of us some assistance in reaching this worthy objective.

The second general area for our concern is the curriculum of the junior colleges. Fortunately, we shall have the expert advice and assistance of an authority in this field as it relates itself to curriculum development in the person of Dr. Hobson. This subject is of great importance and significance to public community colleges by reason of the fact that many of their curriculums are supposed to be built in response to the needs of the several communities in which they are located. In further consideration of this subject we shall have the pleasure of hearing Dean Smith on the subject of general education. Its significance stems from the fact that most people are convinced that general education should be an integral part of all instructional programs, even in the fields of technical education which will be considered on Wednesday afternoon.

Moreover, we are hearing much these days about the gifted student and what should be done to stimulate him to put forth his best efforts. It is a fact that a considerable number of these young people have been, are now, and will be found in our community colleges. Their very presence should be a sharp challenge to every junior college administrator and teacher to provide them with studies, and with counsel and guidance appropriate to their very best abilities. It is an especial challenge to the community colleges because their doors are supposed to be open to every high school graduate and to any other mature person who can profit by what the college can offer. In this wide policy for admitting students, it becomes imperative for us to make every effort to guide, inspire, and instruct each student to attain maximum results in keeping with his native abilities. We hope and expect that Dr. Heller will show us how to do this job better than we have before. For example, I visited a community college last year with an enrollment of full-time day students of 2,500. In this body of young people, I discovered that every top graduate in all of the high schools of that junior college district was enrolled in that college with the exception of two who went away from home. This fact imposes a deep responsibility on the community college, because these students deserve and need just as good opportunities to excel in the community college as they would have in a senior institution.

When too many of the most able young people who are graduating from our high schools are not continuing their education, it behooves the administration of every community college to go into the byways and hedges and in the best sense of the Biblical language to "compel them to come in." But when they come in, we have a very serious obligation to provide the facilities, faculties, and instruction commensurate with their deepest needs and best talents. It is my hope, therefore, that we may not merely hear what the good word is from Dr. Heller, but that we shall resolve to go back to our colleges and communities and make even greater efforts to be doers of this word.

The fields of college-level technical education and training will be presented and discussed. Since this field of education is a natural for the junior colleges, and in many respects its own exclusive hunting grounds, and further the one which has been neglected too much, what I may have to say should challenge our best thought and efforts in the workshop and in our colleges back home. This subject is important, too, in view of the critical shortages our Nation faces in engineers, scientists, mathematicians and other professional personnel. I shall attempt to point out that some of our present gaps and lags arise from poor utilization of our best professional talent and in our failure to develop scientific teams from our various levels of abilities. But more of this on Wednesday. The work objective in this matter will be, I hope, a better understanding of what true technical education is and a determination to do our part to provide it in our junior colleges.

A natural part of our consideration of curriculums in junior colleges will be our concern with their articulation with those in senior colleges. This is a problem which is being considered by a joint committee of the American Association of Junior Colleges, the Association of American Colleges, and the American Association of Collegiate Registrars and Admissions Officers. Three meetings have been held to date and others are planned for the future. I am sure that Dean Waggoner will bring to our attention many of the problems as they are viewed by the University of Kansas and other senior institutions. It is my hope that our discussions may lead us to clearer understanding of the problems both from the standpoint of the two-year and four-year colleges and universities.

In these discussions we may bring to the fore some of the difficulties which arise when matchings must be made course by course, and in exact sequence of courses; when transferring students are not permitted to receive full credit on the basis of general averages for all of their work, even though native students at senior institutions are granted this privilege; when at times students' grade points are reduced by reason of the fact that they are transfers; and when they are denied the right to receive Phi Beta Kappa and other high honors even though their grades during their four years clearly indicate that they are worthy. None of these points may be applicable to our discussions in relation to the University of Kansas, but they are points for serious consideration when junior college graduates transfer to some senior institutions in the United States.

Then, according to our program, we shall center our attention on the most important phase of the whole educational process, namely, the student. The admissions problems will be presented by Dr. Hitt who is the director of admissions and registrar at this university. A second phase of this subject falls within the scope of the instructor's part in a good guidance and student personnel program. It will be presented by Dr. Collister, director of the University of Kansas Guidance Bureau. As I see it, these two subjects have many elements in common and strong implications for the junior colleges. We in the junior colleges have great responsibilities because of our wide admissions policies. This at once means that the most careful possible testing, guidance and counseling must be done to assist students to enter curriculums in which they may do the most satisfactory work. There is another responsibility in this connection. It is the necessity for honest appraisal of our graduates who are university bound and sincere recommendations of them to the university.

During my presidency of 16 years of Green Mountain College in Vermont, we had a working agreement with the State University that our graduates would get blanket credit for all of their work with no reduction in grades, provided they had made an average of C or better, and further that they had completed comparable prerequisite courses in their chosen curriculum, and lastly that they were fully recommended by the registrar and the president of the college. There was an understanding that if very many students were recommended who did not measure up to standards of accomplishment in upper-division work at the University, the agreement might be cancelled. It was never cancelled because every student who was admitted to the junior college was given a written statement to the effect that he would not be recommended for transfer to the University of Vermont or to any other senior institution unless his or her character, efforts, and attainments were such that an honest recommendation could be made.

Across the board, our junior colleges are not doing nearly enough in ent personnel services, especially when we know that a complete service involv ing and admission, counseling and guidance, placement and follow-up and feeding into the faculty data results from follow-up studies. A number of colleges ve excellent programs, others have very good ones, but too many of them have nly partial programs, are lacking funds and professional personnel to do a good job, and sometimes lack appreciation by boards of control of the importance of functions.

Let us hope, therefore, that with the help of Directors Hitt and Collister our sincere facing of the student personnel problems, we may find ways and ans to improve these services in our junior colleges in Kansas.

The final phase of our work is to reach some practical and helpful objec s for our teachers and the improvement of their teaching. In view of the fact junior college instructors are not employed because of their interest in c research, with the exception of research in good teaching, but for their tial abilities in masterful classroom teaching, this subject is of

I see the program, we shall have three main sessions is issue. First, Dr. Haugh will bring to our attention ob regarding methods and techniques of instruction at the junior college level. cond, your consultant will consider with you some ways to improve instruction give special attention to in-service programs. Third, our good friend Floyd r will bring us up-to-date and point us to the future on the preparation of college teachers and standards for accrediting junior colleges. During these tings, we should at least get at the nub of these issues and discover how instructors and instruction can be improved by better preparation, by using educational methods and techniques, and by in-service training and educa- programs.

When I accepted your kind invitation to be your consultant for this workshop, I addressed a letter to all of the junior college administrators in the state. I asked for information regarding what problems and issues were most critical. Of course, there was the ever-present one of finances. But quite a number responded to the effect that a great deal of attention should be given to the teachers. It appears that those who made the program had the same view. We hope that our deliberations may reach the desired objective of discovering the best ways of improving instructors and their instructional methods so that further progress may be made in good teaching and sound learning.

As your consultant, I shall try to be alert to all formal presentation and to your discussions, wrap up our findings and recommendations at the dinner meeting Friday night, and then get out of town. I shall do my best to hew the line and let the chips fall where they may. This task I accept with deep humility, knowing how difficult it will be to summarize all the knowledge and wisdom to which we shall be exposed during these five days together.

Only a word needs to be said about procedures. It is apparent that by having only one main address at each session, we shall have ample time for the give and take in discussions. I hope that each of us will be stimulated by newer horizon views of our several problems, feel free in this friendly atmosphere to speak our best minds, and between the hammer and the anvil of differing points of view be able to beat out the hot iron of ideas to their proper shape and size.

To recapitulate we shall:

1. Take a hard look at the whole field of higher education in Kansas with special reference to the place, functions, and future of the junior colleges in the total system, and how this system can be financed to the best advantage of the state and the institutions.

2. We shall examine problems in methods of constructing curriculums with special reference to general education, the gifted students, for technical programs,

and how the problems of articulation and coordination can be resolved between the two-year and the four-year colleges and universities.

3. We shall devote serious attention to the methods of carrying out the best practices in student personnel services with special reference to the role of our teachers in guidance and counseling.

4. We shall consider ways and means whereby our instructors may be better prepared for junior college teaching, how the processes of instruction may be improved, and the bearing which good teachers and good teaching will have on the accreditation of our colleges.

# METHODS OF FINANCING JUNIOR COLLEGES IN OTHER STATES

Jesse P. Bogue

The problem of financing education in the several states has a long history. From the beginning, institutions established by the state as such were regarded as the direct financial responsibility of the states which created them. This point of view with respect to other levels of education has been one of long standing and controversy.

In view of the fact that primary responsibility for public education rests with the local communities such as counties, townships and municipalities there has been a tendency to place financial obligations as part and parcel of this total responsibility.

I shall not go back into the long history in the evolution of state support for elementary and high school education. Sufficient to say it has required many many years for the states to assume their obligations in this matter. This is especially true in view of the fact that our total tax structure has been rapidly changing during the past several years. The sales tax, state income tax, state excise taxes and sometimes other types have tended to siphon monies from local political subdivisions into the treasuries of the states. This being the case, the requirement for the support of education from local property taxes has become in the opinion of most thinking people entirely obsolete.

## State Aid for Junior Colleges

The junior or community college is, as you know, a late comer in the field of education in the United States. It is a product of the present century, having begun first of all as a public institution in Illinois in the year 1901. It is interesting to note that one or more junior colleges operated in Illinois for more than thirty years before enabling legislation was passed. They were in fact clandestine educational institutions in relation to the approval of the state. This is, I believe, an example of how so much of education has grown up among the people. It has not been imposed upon the people from the top by a governmental decree. This is strictly true in respect to the establishment of junior colleges in every state. The point of view of legislators therefore has been that since these institutions were established by the people in political subdivisions of the state, the local communities should support them financially.

However, changes have been taking place in the past few years. In the Junior College Journal, February 1958, you will find an excellent presentation of this subject under the title "Recent State Legislation Affecting Junior Colleges" by Dr. S. V. Martorana. He indicates that in the year 1958 thirty-eight states considered legislative proposals bearing on the community college education. In the report covering the 1955 legislative sessions only twenty-six states took action in this matter. The studies of 1947, 1949, 1951 and 1953 showed the number of states taking action on junior college legislation to be from sixteen to eighteen. It can be seen by this record that increasing attention is being given to legislation in the great majority of the several states.

I wish to refer you to an interesting article in Higher Education published by the United States Department of Health, Education and Welfare for May 1958. It is entitled "Patterns of Organization and Fiscal Support in Public Two-Year Colleges" by Dr. Martorana. A second article on this subject will be published shortly. If you are interested therefore to study what the several states are doing, not only in matters of fiscal support but in other respects, you will find presentations by Dr. Martorana very helpful.

I shall not attempt to give all the details regarding how each of the states provides aid for junior colleges. You would not remember these details and their total presentation would probably be quite boring. To take up the states, therefore, one by one which have provided support, I wish to present the following information.

Arizona provides $150,000 per year for each of its two junior colleges. These funds are earmarked for current operations only. The local supporting junior college districts are obligated to provide for all capital expenses. Additional support for current operations is derived from local taxes and modest tuitions and fees. The legislature this year also provided for a statewide survey for the further consideration of junior college education and appropriated funds to carry out the purposes of the act.

California has probably had as long an experience in state support for junior colleges as any other state. At the present time a minimum of $125 per year per student in average daily attendance is appropriated. There is also an equalizing formula which guarantees that there shall be a minimum of $410 per year per student from the state and local finances. If a levy of thirty-three cents on the $100 of assessed valuation plus $125 per student from the state does not equal $410, the state makes up the difference. This provision has been written into law by the legislature in order to provide a minimum foundation program for all junior college districts. Provisions are also made which require that tuitions for students residing outside the junior college district shall be paid by the district of residence. This provision has been written into law to prevent school districts without junior colleges from saying "We will let George do it." It is interesting to note also that this so-called charge-back law has been enacted in the state of New York. Another part of recent legislation in California requires that the school district of residence must pay the junior college supporting district not only the pro rata cost of educating the student but an additional $300 per year per student for the use of college facilities. This more recent legislation has had the effect of stimulating a great deal of interest in many communities for the establishment of their own junior colleges. All funds for construction purposes are provided locally in California and tuitions or fees cannot be charged to students, nor received by the colleges even though payments may be offered.

Colorado has adopted a formula whereby $1,050 per year per teaching unit is paid by the state. A teaching unit is based on the enrollment of seven full-time students or its equivalent. The remainder of funds for current expenses is provided by local taxes and modest tuitions. All capital funds at the present time are secured through local taxation.

Florida is providing all funds for capital expenditures from the state and approximately $400 per year per student for current operations. The remainder of current funds comes from student fees and local taxation. Under the formula from the state there must be a supporting financial floor of at least $500 per year per student from all sources. Also the county or counties which support junior colleges must provide tax levies for junior colleges which are over and above the minimum foundation programs for primary and secondary education. This provision prevents anyone from saying that the funds provided for junior colleges are taken away from primary and secondary schools.

Georgia has had a dual system of public junior colleges for a good many years. There are five institutions which are supported entirely by the state for capital and current operations with the exception of modest tuitions and fees. There are also four junior colleges which have up until this year been supported entirely from local funds and tuitions. This situation was corrected during the legislative session of 1958 so that $300 per year per student is now being supplied from the state for the local and county junior colleges. The inequity of the system for financial support in Georgia has been pressed upon the legislators for a number of years. The action taken in 1958 was probably spearheaded by a considerable number of communities which are in the process of organizing community colleges.

Idaho has two junior colleges, one located at Boise, the State Capital, and the other at Coeur d'Alene in the northern part of the state. These institutions receive several different kinds of financial support amounting to approximately $250 per year per full-time student. Additional funds are provided for vocational and technical education. In 1939 an interesting law was passed which alloted to a junior college district 50% of all the monies apportioned to any county embracing all or part of such junior college district out of the Liquor Control Act Fund. In Idaho they have the expression, "It's tainted but taint enough."

Illinois pays $200 per year per student for current expenses but provides no capital funds. Illinois was one of the late comers for state support having passed its first appropriation only three years ago which began at $100 per year per student. Provision is also made whereby districts without junior colleges may by vote of the people pay tuition for students attending junior colleges within the state.

Iowa has had junior colleges since 1918. They were supported entirely from local funds until 1952 when the state provided approximately $45 per year for each full-time student. This amount was increased in 1957 to approximately $180 per year per student. No funds are provided for capital expenditures. These come from local taxes. Reasonable tuitions are charged.

Maryland launched a program about ten years ago for the development of community colleges. It is interesting to note that these institutions were included under a law which provides that "county boards of education may organize elementary schools, junior high schools, senior high schools or any other combination of grades." It was under this last clause, namely, "any other combination of grades" that the junior colleges were organized by county boards of education under the approval of the State Department of Education and given support from the State Legislature. The formula in Maryland is one-third for current support by the state, one-third by the county and one-third from tuitions. All public education in the state of Maryland is organized under the county unit with the exception of the City of Baltimore. At the present time no funds are provided for capital expenditures. The formula adopted by the state for current support has never been carried out in its entirety because the amount appropriated by the state has never been quite equal to its one-third of payments. This has been due largely to the fact that enrollments have increased more rapidly than the funds appropriated by the state.

Michigan is paying approximately $187 per year per student for current operations. In 1955 and again in 1957 the state appropriated $1,200,000 for capital funds. Local taxes and tuitions provide the remainder of financial support. It is interesting to observe that in Michigan considerable sums have been given by corporations and individuals. The Ford Motor Company, for example, has given what is equal to approximately $3,000,000 to the Henry Ford Community College at Dearborn. At Flint the contributions of individuals and corporations for capital outlay and endowments exceed $10,000,000.

Minnesota passed its first appropriation act for the state support of junior colleges in 1957 in the amount of $200 per year per student. Junior colleges have been in operation in Minnesota since 1916. In other words, it required forty-one years for the state to make up its mind that it had an obligation for the junior college.

Mississippi made its first appropriation for junior colleges in about 1932 which was for the very small sum of $100,000 for all of the institutions in the state. In 1958, the legislature appropriated $3,365,732.63 which was to the penny the amount asked by the junior colleges. The Budget Commission of the Legislature had recommended a measly appropriation of only $140,000. The Legislature took a further step and appropriated $100,000 for each of its sixteen public junior colleges for capital expenditures including new buildings, repair, improvements and equipment. The appropriation for the present biennial is

18 per cent higher than it was for 1956-58. State support in Mississippi represents approximately 40 per cent of current operations.

New York pays from state funds one-half of all capital expenses and one-third for current operations. One-third is provided by the sponsoring community college district and one-third from tuitions. I have previously mentioned the fact that in New York the charge-back law requires that the county of residence which has no community college must pay one-third of the operating cost. The most encouraging sign in New York was the constitutional amendment overwhelmingly approved by the voters last November which will make it possible for the state to float a $250,000,000 bond issue for capital outlay for higher education. Somewhere between $60,000,000 and $75,000,000 of this amount is to be used for the construction of community college plants. This amount will of course be matched from local funds.

North Carolina made its first state appropriation for junior colleges in 1957. It adopted a plan to pay $3.00 per quarter credit hour for students who are residents of the state and who are taking regular college courses or technical terminal programs. North Carolina also appropriated $1,500,000 for capital expenditures for its present four public junior colleges. The sums appropriated to each college must be matched by local funds.

Oklahoma has now a situation which is analogous to the past history of support in the state of Georgia. There are seven junior colleges supported for capital outlay and current funds entirely by the state with the exception of income from tuitions. There are six junior colleges which are supported entirely from local funds with no assistance at all from the state. I have mentioned this fact because it is one which is receiving considerable attention by legislators and citizens in Oklahoma. The inequity of a situation of this kind needs no comment.

Texas appropriated $240 per student per year for the first 350 students enrolled in a junior college and $180 per year per student for all in excess of this number. This was done in order to help equalize state support for the smaller junior colleges. The average per student throughout all the junior colleges is approximately $206 per year per student. All capital funds are provided from local taxes. State funds for current operations are supplemented by local taxes.

Utah maintains four junior colleges for capital and current financing entirely from state funds with the exception of tuition income. Appropriations are made on the same basis as for the senior colleges and universities. The formula is rather complicated and I shall not attempt to explain it here. There are no local taxes levied for these colleges.

Washington state appropriates more than $300 per year per student for current operations and the remainder is provided locally by taxes and low tuitions. The state also provided funds for capital construction. The percentage depends on two things: (1) the ratio of in-district and out-of-district students, and (2) the state matching ratio for the district in general. Thus a district with a general state matching ratio of 50% and having 60% of its students outside the district would receive 80% of its capital funds from the state. As of 1958 nearly $6,000,000 is being spent for construction. All of the ten junior colleges in Washington are either building new plants or adding buildings to their present ones.

Wyoming has made a small beginning for state support in that funds are provided for nursing education. $80,000 was appropriated for the present biennial to assist junior colleges with teachers' salaries. The state further provided for 200 scholarships of $250 each to be granted by the state board of education to graduates of Wyoming high schools on the basis of scholastic aptitude, financial need and character. These students must be pursuing teacher education programs. The scholarships are available to students who are attending the four community colleges of Wyoming as well as to those who are attending the State University.

## SUMMARY

In summary, I have stated the facts about most of the states which are providing considerable state aid to two-year colleges, and a few which are giving only token amounts. There are a number of other states where one or more two-year institutions as listed in the Junior College Directory for 1958 are receiving some assistance. These are: Alabama, Arkansas, Indiana, Maine, Missouri, Montana, Nevada, New Mexico, North Dakota, Oregon, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin.

There are 31 states which are giving state aid either in the form of funds for current operations, or for capital outlay, or both. Among all states there are 17 which are helping in one way or another with funds for capital expenditures.

I have not included the state of Kansas, first because you know much more about it than I do, and second, it did not fall within my assignment. You are in a position now, I believe, to identify some of the emerging patterns of state support for junior colleges. These are, first, the completion of state surveys; second, the planning for the location of two-year colleges so that they may serve the greatest possible numbers; third, the provision for large junior college districts; fourth, state aid for capital outlay on a matching basis; and fifth, support for current operations on practically a three-way division, namely, one-third by the state, one-third by the sponsoring local district, and one-third by tuitions and fees.

# CURRICULUM DEVELOPMENT IN THE JUNIOR COLLEGE

by

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## Some Concepts that Need Verification and Amplification

1. The junior college is the chief formal educational institution for those American youth for whom the high school is inappropriate by reason of the attained level of educational, social, economic, or other maturity.
2. Its function is to provide for the educational needs of those in attendance.
3. The curriculum of the junior college includes all of the features of the students' environment, on the campus and off, employed by the school in furthering the educational development of the students.
4. The curriculum has value only in so far as it promotes development: it is the instrument of, not the end of education.
5. The curriculum consists of two interdependent phases: the passing on of the racial culture (including the knowledge and understandings, the skills and habits, and the attitudes and ideals accumulated by the race) and the aiding of students in employing that culture in more effective living. The former phase is essential in that it conditions and contributes to the second; the second, however, is the fundamental determiner of the effectiveness of the instructional program.
6. Two curricula may be distinguished in every instructional situation: the educative environment provided by the school is the school's curriculum; the student's reaction to this environment is his curriculum. The student's curriculum is the one that educates.
7. The manner in which the elements of the curriculum are employed to further the development of the individual (organization of the curriculum and methods of instruction) is a fundamental factor in its effectiveness.
8. Students may enter junior college with one of three purposes in mind: to receive terminal general education, to receive terminal vocational specialized education, or to prepare for further formal education. The school should provide the curricular offerings to meet the individual students needs or advise him to go elsewhere.
9. The able use of certain general skills and habits are necessary for successful living in a democratically oriented society. Some of these are: integration of personal experiences, dynamic group activities, reflective thinking, personal and social integration, and self-direction. The curriculum maker and the curriculum user in the junior college must be concerned with the student's development and use of such skills and habits.

10. The junior college probably has a distinct function to perform in the total education of American citizens. We may do well to accept a general definition such as the following and then locate the junior college within it.

## A DEFINITION OF AN IDEAL PUBLIC SCHOOL

The ideal public school is society's chief formal educational institution organized for the purpose of promoting optimum development of all children, adolescents, and youth. Its functions are to guide the individual: (1) in understanding the social culture and in acquiring its basic ideals and certain of its processes; (2) in evaluating social concepts, ideals, and processes; and (3) in participating in his society with optimum satisfaction to himself and optimum benefit to society. The school's ultimate purpose is to establish appropriate behavior patterns in individuals.

The social culture includes the knowledge, understanding, skills, habits, attitudes, and ideals that have been accumulated by mankind. Elements of the social culture may be classified into two functional areas; those that are instrumental and those that are experiential. Illustrative of instrumental elements are: communication arts and skills, mathematical concepts and skills, spiritual concepts, skills in reflective thinking, concepts in science, aesthetics, physicial competence; of the experiential are: family living, community living (local, national, and world), vocational pursuits, leisure time activities.

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# OBSERVATIONS ON THE GIFTED STUDENT IN COLLEGE

by

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In discussing programs for the gifted on the college level it is well to remind ourselves of the tremendous diversity that is to be found among American universities and colleges. The private, selective institution may take an entirely different approach to the problem of the superior student than the public, tax-supported institution, especially if the latter is by law required to admit all graduates of the high schools of its state. The church-related institution, drawing upon a potential student body of distinctly different motivation, faces problems quite different from those of a multi-purpose institution that opens its doors to all comers.

The interest in the gifted student which has received so much discussion in recent months is in fact not an entirely new twist in the gyrations of curriculum thinking. David Riesman has compared American education to a snake, suggesting that the tail not infrequently keeps wiggling on in one direction while the head of the snake has already started movement in an entirely different--sometimes opposite--direction. So too, with the question of special concern for the gifted. Some of our private institutions have had programs for superior students for a number of years. At Swarthmore, Frank Aydelotte broke the "academic lock-step" thirty years ago; Reed College on the west coast has long had a program marked by a high degree of flexibility and a good deal of emphasis upon individual student development. In a different vein, Yale has had the "scholar of the house." What should be noted is that these are all private institutions, with pre-selected student bodies. Note also that the programs for the gifted as they exist in these institutions are junior-senior programs. Indeed, provision for honors programs of one type or the other on the junior-senior level have existed in a number of institutions for quite a few years. Not infrequently, the impetus came from some member of the faculty who remembered his experience as a Rhodes scholar in England and sought to institute on his campus in the United States something resembling the Oxford system.

What may perhaps be described as the Kansas approach to the gifted student departs from this pattern in one crucial respect: the program as it developed at the University of Kansas places its major emphasis upon the entering freshman--it wants to capitalize on the new college student's enthusiasm, it seeks to carry on the impetus which this kind of student brings with him from high school and to accelerate, if possible, the momentum of his intellectual growth.

Why this emphasis on an early start? In the first place, we consider it desirable to minimize the danger of repetition of work done in high school. If it can be assumed that the eleventh to the fourteenth year of a person's education is dedicated to the broadening experience of what, for want of a better term, may be called general education, then it is in these years more than at any other time that the alert, the quick to learn, the bright student will be able to accelerate. If we assume further that for a great number of students in this group the completion of four years of high school is preferable to early admission to college--and in the great majority of the cases this is undoubtedly true--then the point at which the excision can take place would be in the freshman and sophomore years in college.

A second reason why we consider it desirable to start with the program early is to be found in the high attrition rate in the first two years in college. In every freshman class there is a sizeable number of students who will not be able to meet the continued demands of an academic schedule on a college level. Thus, it is in the freshman class that the spread of ability among students is the greatest, and the need for differentiation between students on the basis of this ability the most acute.

A further reason for starting the program early is that it is at the point of entering college that the gifted student experiences a peak of anticipation of future intellectual experience. He looks forward to college as something that will be different from high school. He expects to meet up with members of the faculty who will strike him at first contact as being not merely teachers, but scholars and specialists in their field--and he should not be disappointed. A last point that deserves mention is that a program focusing the student's attention on academic achievement, when presented to him at the time of his entry into college, will find this student not yet encumbered by a great variety of extra-curricular activities, with commitments to groups and organizations which he finds it difficult to forego. Not that we would not want the gifted student to be active in extra-curricular work! Quite to the contrary: we would expect this group to furnish a very high level and a very high proportion of the leadership in campus groups. The experience on our campus here at the University of Kansas certainly bears this out. What we would hope to accomplish is that a student would maintain a reasonable balance--and to do this he must learn **early** that academic achievement can receive as much recognition as leadership and effort in non-academic activities about the campus.

All these reasons for starting an honors program early would seem to me to have as much application to junior colleges as they have to universities, and hence, if a university is justified in conducting an honors program on the freshmen-sophomore level, this also constitutes a proper and appropriate program for a junior college. (Indeed, of course, at a university such as ours the first two years are comparable to a junior college; as the members of this workshop well know, the Liberal Arts College on this campus numbers among its students in the freshman-sophomore years not only who will graduate from the college, but also those who will spend their junior and senior years in the schools of Education, Business, Journalism and, recently added, Pharmacy.)

Hence, it may be appropriate to discuss some of the experiences of the University of Kansas program and to suggest what in these experiences might be applicable to programs undertaken in junior colleges.

In our experience here in Lawrence, the principal problems in a freshman-sophomore level honors program were two: counseling, and course quality. The indentification of the potential honor student is, of course, more difficult at a university with 1100 entering students in a freshman year than it would be at a junior college, but the problems inherent here may be sufficiently different that they need not be set out here in detail. Once the student has been spotted, the key work then becomes counseling.

Here it is important to convince the student that the counseling he will receive or is receiving is distinctly different in quality. This means that he must be given an adviser or counselor who is a different kind of person: in our case, we utilize the administrative officers in the College Office (the dean, the associate dean, and the assistant dean), the members of the Administrative Committee--senior members of the faculty elected by their colleagues for overlapping three-year terms--and a few others who usually have served on the Administrative Committee or otherwise are distinctly qualified for counseling in an honors program.

Secondly, the student must benefit from a reduced student-counselor ratio. In our case, we attempt to assign not more than six or seven freshmen to one adviser. This means, in practice, that the adviser is in a position to get to know the student quite intimately, to deal with him on a personal basis and thus to establish a much better and closer relationship. The adviser is especially qualified also in a sense that he has more latitude than faculty advisers generally have. We have made it possible for those advising in the honors program to grant exceptions to the rules where this is necessary to enable the student to pursue a program commensurate to his abilities. Thus, if a student is desirous of taking a course load heavier than that normally allowed, the adviser is free to authorize this; if it seems desirable to place a student in a course for which he lacks formal credit for the listed prerequisite, the adviser can authorize this; if substitutions for specific required courses appear to be in order, this too may be accomplished with the adviser's approval.

One of the important facets of a freshman honors program is to be found in the availability of honors sections. We have provided for such in most of our multi-section introductory courses. This, of course, is not a new device: homogeneous grouping by ability has been used for a long time in the secondary schools, but on the college level there has been a strong tendency to create distinct courses or distinct sections of courses on the basis of the student's apparent or indicated vocational aim. The conviction that ability rather than the student's possible job aspirations is a sounder basis for segregation has been fairly well accepted by our faculty and has been acted upon in the provision of separate sections in our multi-section courses and the nearly complete disappearance of special courses for this ,that, or the other group of students based upon vocational distinctions.

The points that have been discussed here may be of more importance for a four-year university than they are for a junior college. There, identifications is easier because of the smallness of the institution--at least as long as we are not talking about California junior colleges. It is particularly easy where, as is predominantly true in this area, junior college students are likely to be the product of the local or adjacent high school systems. But special counseling still matters and here it might be well worth to point out that students too have their "pecking order": there is no question at all that prestige attaches to being "the Dean's advisee."

Whether or not a junior college can practice the establishment of honor sections may well depend upon its size and its resources. When we talk of honor students on the freshman level, we are talking essentially of those who fall into the top 2 per cent of high school graduates by the national norms. Thus, in a freshman class of 100 there might not be more than four or five students who ought to be in this group. Even if there were ten, as might well be the case, this may still be an uneconomical number to operate with.

If, thus, identification and special sections will assume different proportions in the junior college than they would in the large state university, there remain the matters of counseling and of special course content.

The Kansas program does not include any belief that the program of gifted students should be a rigid one. We assume that our prime purpose is to stimulate the student in whatever areas he appears to be ready for the challenge. We have, however , followed the practice of putting all the honors freshmen into honors English, and we have also urged, cajoled, talked them into participating in discussion groups of the Western Civilization program during their first year. The reasons for insisting that the student participate in these two courses are twofold: first, because we thereby place him in company of his fellow students of the same caliber; secondly, we assure that the student is exposed to some of the best teaching that we may have available and we afford him the opportunity to enter into a much closer student-teacher relationship than might normally exist. The Western Civilization program with its emphasis on discussion groups is particularly suitable. We find that students who as freshmen have taken part in the Western Civilization discussions express a desire and, indeed, insist on similar courses in their subsequent years--and some preliminary thought is being given to the development of such courses.

Both in English and Western Civilization some effort has been made to keep the same adviser's students together, thus contributing to the development of an esprit de corps. This, in fact, is a very noticeable element among the gifted freshmen that we have seen over the past three years. They identify with one another, and with the group, to a high degree--even though many of them would be considered rank individualists on the face of it. This interaction serves as an important addition to the incentives and challenges which the school may provide and it deserves to be fostered from the very beginning of the student's collegiate experience.

The vitality of subsequent honors groups, too, will hinge upon the effective job that we do with the gifted when the opportunity first becomes ours. For it is through the stimulation of students in their early year, in their freshman year, that the impetus is created that carries these same students further.

Last, but by no means least, let me stress this point: that it is through the techniques that we develop with the gifted, that we learn more about the proper challenging of all levels of students--and this, of course, is the primary function that all of us, in the junior colleges and in the four year institutions, must set ourselves: that we shall challenge our students, whatever their abilities may be, to extend themselves at all times to the outer limits of their capacities.

June 1958

# SPECIAL AND TECHNICAL PROGRAMS IN COMMUNITY COLLEGES

Jesse P. Bogue

The role of the college educated and trained technician is receiving increasing attention now from several sources. Among these are the Department of Labor, the National Science Foundation, colleges and universities, business and industry, the Armed Services, and many voluntary organizations such as, for example, the Engineers Council for Professional Development, the American Association of Junior Colleges, and many others. There are two special projects being carried forward on a national scale for the purpose of finding more reliable data on this subject. One is the national survey of technical education under the direction of G. Ross Henninger of Iowa State College which should be completed and published this year. The other is a national study by Dr. Leland L. Medsker at the University of California. The latter is a part of the studies on Diversification in Higher Education supported by a grant from the Carnegie Corporation of New York.

## Reasons for the Studies

There are several urgent reasons for the interests and studies among the various groups. First, in terms of education we have been caught in a dramatic lag in the fields of science, mathematics and engineering. Some responsibility for this gap in our educational program can be laid at the doors of our high schools in that the choice of subjects to be selected by students permits them in many instances to avoid almost any kind of advanced secondary work in the sciences and mathematics. This at once reduces the percentages of graduates who are qualified for college-level studies in these fields. Throughout the whole Nation, efforts are being made to remedy this situation and serious consideration is being given to it in the Congress.

Much of the lag has occurred because the progress of technology in almost every field of agriculture, business, industry, the Armed Services, and in the healing arts has come about by explosive bursts of development. Sharp competition in the production and processing of new machines of all kinds for peace and war has been one of the reasons. The ratio of engineers to industrial employees, for instance, has been rapidly increasing since the turn of this century. In 1900 the ratio was 250 employees to one engineer; in 1925 it was 100 to one; in 1950 it was 50 to one. And it is estimated that by 1975 the ratio will be one engineer to each 20 employees.

The greater complexity of machines to design, build, install and maintain, and to prepare their schedules of production by methods of automation have been largely responsible for the increasing ratio of engineers to other employees. For example, in 1940 one aircraft company spent 17,000 manhours in engineering to produce a typical fighter plane. The requirement now is 1,400,000 engineering manhours. Thus the whole field of industrial development rests on the upgrading of skilled artisans to be technicians, the advancement of technicians to be engineers, and the promotion of engineers by education to become scientists. The gradual elimination of unskilled labor is too well known to need only mere reference here.

There are some further facts which bear on the problem. While we had 286,000 engineers in 1940, we now have 600,000. While we had 92,000 scientists and mathematicians in 1940, we now have 250,000. The rate of increase, however, has not kept pace with developments in production and processing of nearly all kinds. Moreover, it has been found that engineers are frequently tied down to routine jobs which can be performed just as well and even better by technicians. There have been lags in realizing that engineering today is a team undertaking embracing the skilled artisan, the technician, the engineer, and the top scientists in contrast to the traditional view that the team was composed quite largely of the skilled worker on the one hand and the engineer on the other.

Our situation is made even more critical because in the prime working age groups of males, 25 to 34 and 35 to 44, by 1965 there will be no increase. While there will be an increase of 600,000 in the group between the ages of 35 and 44, it will not offset the decrease in the group between the ages of 25 to 34. No comment is needed to emphasize the necessity for us to upgrade the education and skills as far as possible for these male workers, to increase the number of women workers, and to utilize the skills of minority groups, especially our Negro citizens.

Our shortages are compounded by revolutionary discoveries and developments in new sources of power such as, for example, the use of fissionable fuels. In a recent address Dr. Eric A. Walker, President, Pennsylvania State University, pointed out that one pound of this material holds a potential of 10,000,000 kilowatt-hours of energy. He contrasted this fact with the observation that "the average man can exert a power of something less than 100 kilowatt-hours in a year by working 240 eight-hour days."

Coupled with the facts we have recorded is another of startling proportions. It is the rapid rise of the educational and scientific developments of Russia. All education from start to finish has been made free. Generous subventions are provided for well qualified students to continue their education to the limit of their abilities. The entire program of education is heavily weighted with mathematics and science. The dramatic launching of Russia's earth satellites has convinced us, even though reluctantly, that she is rapidly approaching the day when she can beam these destructive instruments on our cities. We can no longer believe that she will be without the scientific knowledge and skills and the engine thrusts to accomplish this purpose. Moreover, while Russia may not have the financial resources to carry on physical assistance to undeveloped and uncommitted countries, she has now and will have increasing numbers in the future of engineers, scientists and technicians to export to these countries. It is a real threat to our way of life. As observed editorially in the Washington Post October 10, 1957, "Like it or not, this country is in a race, and we had better start to run."

Various studies in recent years have highlighted the fact that too many of our top high school graduates in intellectual ability do not continue their education. One reason is lack of finances and another is the absence of desire to continue. In all of the discussions on this problem, however, we have been impressed by the absence of advocates for a free system of public education from the kindergarten through the university. Most people are willing to go as far as the 12th year, but at that point they seem to balk. The evolution of our educational system has brought us through 300 years to the gradual acceptance of the system of free education up to 12 years of schooling. The plain facts now are that the times in which we live and the competition for survival with Russia and other satellite nations in the communist block, make it imperative that our assumptions need to be drastically re-examined.

What we have said thus far provides some background for the more specific consideration of technical education in the junior and community colleges and technical institutes. We have pointed out previously in this paper that the greatest jobs to be done now are by teams composed of skilled artisans, technicians, engineers, and scientists. Here the community colleges and technical institutes come to the front line for consideration, especially for the education and training of technicians. However short we are now in mathematicians, scientists, and engineers, we are even shorter of technicians in every field. There are several reasons for this condition.

First, there is a woeful lack of guidance and counseling in the high schools with respect to opportunities in the semi-professional occupations. And in many high schools students are being taught the basic sciences by those who are not qualified for certification. It has been stated that in New York

City over 10,000 students in the public high schools are being instructed in the sciences by teachers who are not qualified to teach these subjects. The president of one of our leading southern schools of engineering stated to me within a year that it is necessary to give sub-freshman mathematics to nearly one-half of all entering students. Furthermore, there is an unfortunate attitude on the part of many high school and community college students that the technician's position is unworthy of serious consideration and acceptance. This stems in part at least from the lack of prestige for this type of employee. Our first big job in the United States is to identify as early as possible the potentials of our youth and then counsel and guide them into the curriculums and schools where they receive the kind of education warranted by their abilities. There is also, too much fuzzy confusion about the place, functions, and opportunities for technicians in high schools, community colleges, and in senior institutions.

One of these confusions was stated by G. Ross Henninger last October at the Twenty-fifth Annual Meeting of the Engineers Council for Professional Development when he said: "While speaking about definitions, it seems desirable to attempt to clarify another point of major importance and all-too-much confusion: This is the idea that the zone of the engineering technician is the natural 'dumping ground' for those who 'cannot make the grade' in engineering. As a matter of fact most of those unfortunate misfits who cannot make the grade in engineering as now handled educationally and professionally would be just as miserable in the field of the engineering technician."

## What the Technician Really Is

A clearly stated definition of what a technician really is has never, to my knowledge and reading, been made. One reason is that there has not been a common acceptance by educational institutions and industry of just what makes a technician. In Connecticut, for instance, it was found that industrial practices show little or no consistency as to what a technician is in relation to certain definitions by engineering societies. Some companies applied the term to craftsmen or semi-skilled operatives; and still others applied it to professional engineers.

In general, however, as the term is applied to industry the technician is a person who can do the following: One, he or she can be the right hand man or woman for the professional engineer because of practical knowledge of production processes and laboratory techniques. Two, he has a good working knowledge for practical applications of fundamental engineering and scientific theory and principles. Three, he can apply these principles to the solution of common engineering problems. Fourth, he is a person with above average general intelligence. Fifth, he has less understanding of theory and principles than the engineer, but more than the skilled artisan. On the other hand, he has more ability in several fields of skilled application than the engineer, but less than the artisan. Sixth, he is a high school graduate, or has an equivalent education with mathematics through algebra and geometry, preparation in the physical sciences, and further education from one to three years in a technical-institute-type curriculum.

Of course, technicians who assist engineers, scientists and mathematicians are not the only types. There are many kinds in the health services such as, for instance, nurses above the rank of the practical nurse, the laboratory technician, the medical technician, medical records librarian, and in some instances the medical secretary. At a glance, it requires little imagination to see what would happen to the practice of the healing arts if physicians and surgeons would say, "We have no further use for nurses and technicians. We will do all that is needed ourselves." Using this illustration as a starting point, we can visualize what much of our situation is now in so many other occupations caused by the lack of technicians. The best estimates indicate that we need from 2 to 7 technicians to every one engineer, scientist or mathematician.

## The Technicians' Education

While some subjects required for the education of the professional engineer will be applicable for the technician, a truncated engineering curriculum as such is not the answer for the technician. While vocational education "of less than college grade" has its rightful place, it is inadequate for the technician. C. W. Beese states the matter in these words:[1]

"The scope of the program is more limited than that required to prepare for a career as a professional engineer. . .programs are briefer and usually more completely technical in content than professional curricula, though they are concerned with the same general fields of industry and engineering."

In January, 1957, the National Association of Manufacturers published a booklet entitled, "Your Opportunity in Industry as a Technician." It was produced by educators and industrialists as a joint committee. One of the subjects emphasized over and over is the English language. The art of clear communication by the technician is indicated as a "must." In an address in Pawling, New York, on April 25, 1958, Dr. J. Whitney Bunting, Consultant, Educational and Corporate Support Research for the General Electric Company, stated that a survey of hundreds of engineers in the Company showed that English stood at the top of the list as the most important subject which they pursued in college. The NAM report stated that, "If you go on with a technician career, you are going to need more and more math - trigonometry, solid geometry, analytical geometry, and calculus." Both basic and applied sciences are stressed - physics, chemistry, and geology, and it might have been added that for some technicians astromony is needed.

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[1] C. W. Beese, "The Technical Institute: Its Relation to Engineering Education and Trade Training," Journal of Engineering Education, Vol. 8, p. 46.

Then in more specialized subjects, the joint committee set forth the requirement in drafting, strength of materials and thermodynamics, machine design, metallurgy, and several others of equal importance, depending somewhat on the cluster of jobs the technician is to perform. The committee further indicated the need for courses in industrial and human relations, in organization and management to assist the technician to be a more "flexible individual with good judgment, emotional maturity, and downright common sense."

Of course, there will be variations in the education and training of technicians for different occupations. Also, teachers of mathematics and the sciences should use the greatest possible imagination and understanding to devise course content and methods of instruction to meet the unique needs of students who aim to be technicians. There is a dearth of teaching materials in these specialized fields. Creative pioneering work needs to be done to produce them. Professor E. P. Northrup of the University of Chicago was quoted recently as saying, "In the past fifty years. . .there has been a revolutionary change in the character of mathematics, yet not a trace of this change can be found in the curricula of all but a handful of secondary schools throughout the country." Not being a mathematician, I am in no position to evaluate critically Professor Northrup's observations. But if what he states is true, I suspect that it has considerable application to colleges and universities and especially to mathematics for technicians. At any rate, techniques of instruction should be critically evaluated by those who are competent in terms of functions to be performed by our graduates.

In general, there seems to be agreement among the best authorities on the technical institute type of education. Graduation from high school, or its equivalent is necessary. While certain skills must be mastered for job entrance and understanding, considerable attention must be given to related theory in mathematics and college-level sciences. General education is regarded as a necessary part of the program for personal competence, citizenship, and occupational efficiency. The art of oral and written communication is identified as highly important. Secondary preparation in algebra and geometry is a prerequisite. Where trade training is included in the program, it is to be supplementary and not a substitute.

In order to give you a short comparison of our technical programs with those of our international competitor, I wish to quote from an article by Dr. M. H. Trytten on, "Technical Institutes in the USSR."[2]

"The curriculum consists of three general types of courses. The first of these are the generalized basic courses, such as Russian language and literature, history, foreign language, mathematics, physics, and chemistry. The second group consists of the specialized courses related to the individual's special interest. This usually covers a range of 15 or 20 courses, and the composition of the group depends upon the specific interest of the individual. The third group is composed of industrial, clinical, or other types of practical experience, usually on the job, in the field of specialization.

"In the field of engineering the type of courses in the second group can be inferred by noting a typical case, mining engineering. The courses in such a curriculum would include drawing, mechanics, electrotechnology, machinery, practical metallurgy, geology, mining, surveying, economics of coal production, cost accounting, mine safety, and the various applications of these fundamentals to mining."

It is not my purpose to advocate that we imitate the Russian education. We should, however, realize that our programs must be even better than Russia's if we expect to maintain superiority. Russia's 3,500 technicums which now enroll an estimated 2,500,000 students are forces to be reckoned with. We had better confess to ourselves now that we are greatly outstripped in this field of education and training and take steps to correct the situation.

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[2] M. H. Trytten, "Technical Institutes in the USSR," Technical Education News, June, 1956, Volume XV, Number 3.

## Curricula for Technicians

It would require many pages to list the curricula for the education and training of technicians. The United States Department of Labor is now compiling a new Occupational Outlook Handbook for Technicians. It is the first in which attention will be devoted to this field of employment. In the industrial field alone there are many categories and all of them can be broken down into several subtitles. Just to name a few we have: electrical and electronics technology, mechanical and metallurgical technologies, chemical technology, industrial technology, building construction technology, civil technology, automotive, Diesel and steam technologies, air conditioning, heating and refrigeration technology, instrumentation technology. The possible list of occupations is as long as the things being done today in business, industry, agriculture, basic services in distribution and maintenance, the healing arts, and many others.

In the broad field of electrical and electronics technology there are at least 25 subtitles for occupations. In the case of the well educated and trained technician, it should be noted that he is competent in whole clusters of these occupations. He knows the fundamentals well enough so that he is versatile and adaptable and can perform different kinds of functions in contrast to the tradesman who is skilled largely in the performance of one kind of job.

Community colleges and technical institutes are becoming increasing aware of their obligations and opportunities in the fields of technical education. For many years, the American Association of Junior Colleges has been strongly advocating that the community colleges should move into this type of work. Under a grant from the General Education Board, from 1940 to 1943, extensive investigations were made and four books were published by the

Association on terminal education. World War II highlighted the necessity for this type of education by reason of the fact that the Federal Government spent over $60,000,000 in crash programs for engineers and technicians. If we do not make rapid progress while we have time, and if we should unfortunately be involved in another war, another crash program will become necessary which will cost the Federal Government many times the amount it spent in World War II. Yet it is exceedingly difficult to persuade the Congressional Committees charged with responsibility for education to consider seriously the area of education for well-qualified technicians. Like so many of our community colleges, the Congress tends to move either in the direction of professional engineering education or towards vocational education "of less than college grade." Even so, some progress is being made and it is our hope that the field of education for technicians will have its day in court.

## What Some Colleges Are Doing

In New York State alone the community colleges and technical institutes offer instruction and training for technicians in four broad fields in agriculture, five in the health and medical services, eight in industrial technologies, and twenty in technical services. There is a range from agricultural production to dental laboratory technology, from chemical technology to optical technology. In several ways the New York two-year colleges are blazing trails because of their background in vocational and technical experience and the economic factors which brought many of these institutions into existence. With the emergence of the comprehensive community colleges in that State, one-fifth of each technical curriculum registered with the University of the State of New York must be in general education. Thus we can see the development of a blended program of technical skills, related mathematics and science, and the social-humanistic studies. New York is rapidly developing one of the best educational programs for fully competent technicians in the United States.

Worcester Junior College in Massachusetts, an independent institution, has a mechanical technician's program providing instruction for occupations in eight different fields, industrial for seven main occupations, tool engineering for four occupations, electrical power for seven programs, and electronics for eight. These occupations range all the way from machine designer to quality control, form process engineer to technical writer, and from test engineer to laboratory technicians. Ohio Mechanics Institute at Cincinnati, founded in 1828, began to revise its program of studies in 1919 in keeping with the requirements of the present century. One of its most important programs is mechanical engineering technology. President Miller states that "in addition to the usual mechanical laboratory courses, engineering drawing, etc., we believe that the elements of psychology, written and spoken English, and industrial safety have added a great deal to our basic technology offerings."

A considerable number of two-year colleges have begun to organize technical programs quite recently. For example, Amarillo College in Texas, following a survey of community needs, instituted a program in technical drafting including architectural, machine, structural, piping geological and topographical. Thirty-two hours of mathematics, physics, English, history and government and physical education are included and the successful student graduates with a degree of associate in applied science. Coffeyville Junior College in Kansas has recently organized its two-year curriculum in tool and die design with help from the Allied Institute of Technology in Chicago and local engineers. Mathematics, descriptive geometry, theory of machine operations, English, psychology and history are included with the more highly technical phases of the program.

We could continue this listing of individual institutions for many pages. From a spot survey which I made I can say, however, that the junior colleges and technical institutes are moving in the right direction, but not fast nor far enough.

## The Technicians' Wages

In A Study of Technical Institutes made by Wickenden and Spahr in 1931 it was shown that a qualified technician began at about the same salary as an engineer and almost paralleled his salary for the first fifteen years. This is probably not the case today, especially for beginning salaries. However, my spot inquiry showed that technicians are starting in Kansas at from $300 to $425 per month, in Colorado at about $300 per month for the first 6 months and open after that time with some graduates now receiving as high as $6,000 to $7,000 a year. In New York the range is from $70 to $125 per week in Brooklyn, $300 to $480 per month in Buffalo, and for graduates of Fashion Institute of Technology it is stated that, "starting salary is about $80 per week. One-third in salary is added at the end of one year. The beginning salary is as a rule tripled at the end of five years." President Bethel further says that, "We know there are many who have been out more than five years who are in the $15,000 bracket." In any event, it appears that technicians' jobs pay well and that advancement can be rapid with the sky as the limit in promotions for those who are well qualified and ambitious. Records indicate that while the technicians' education was aimed primarily at immediate employment, a good many graduates have continued their formal education. The General Electric Company has an interesting program at Somersworth, New Hampshire, for apprentices but which is entirely open ended so that those who complete the studies and training successfully may continue at the University of New Hampshire with no loss of time or credit. There should be many programs of this type and the two-year colleges could readily move into it if they were minded to do so.

## What Are the Results?

Some two-year colleges are doing a thorough job in following up their graduates. I would cite you to the excellent records of the Agricultural and Technical Institute on Long Island, New York and to the New York City Community College in Brooklyn as examples. They know where their graduates have gone, where they are from year to year, what they are doing and how well, what pay they are receiving, and secure from them and their employers criticisms and suggestions about the education they received. Generally speaking, however, I believe that follow-up activities among the two-year colleges is one of their weakest. We could write pages of quotations from employers about their judgments on the technicians' preparation and competence. I wish to close this too long address with just a few of these statements:

"We have employed a number of your graduates. We have graduates among our managers. They possess not only a technical knowledge...but what is more important, a basic concept of the problems facing our industry."

"We are always happy to have one of your students, as we always get a person with more than average potential."

"I hope to be able to depend on your students and graduates in the future to help fill our increasing engineering needs."

"Employees of our company that have been trained by the Coffeyville College in the area of Tool and Die Engineering have been well prepared to do the planning and design that is needed in our operation. They have proved themselves to be capable, well equipped, and with sufficient imagination to further our needs and interests."

"We used 60 per cent of your graduates of the class last year and most of them have already had two pay increases. The pay-off for us has been the fact that the training the men received at the college has enabled us to move more rapidly in our plan than otherwise would have been possible. We have been pleased to have had a hand in the development of a program of training that has materially enhanced our operation..."

"I want you to know that the type of training these young people are getting is something that is badly needed in this area."

Ladies and gentlemen, there is a gold mine of possibilities in the fields of education and training for well qualified technicians - those who assist scientists, engineers, the medical profession, business concerns of many kinds, and for the defense and survival of our Nation. The field is wide open for exploration and exploitation. May I close with the wish that we may be wise and courageous enough to move boldly toward this challenging operation.

# PROBLEMS IN ARTICULATION AND GENERAL EDUCATION

by

George R. Waggoner
Dean, College of Liberal Arts and Sciences
University of Kansas

There is a difference between the organization and functions of the College of Arts and Sciences in a large university and the organization and functions of the professional schools in the university. At the University of Kansas the College enrolls a total of more than three thousand students. Two thousand of these students are freshmen and sophomores and about a thousand are juniors and seniors. Where the professional schools are organized with an early fixed curriculum for their students, the College draws a very sharp distinction between the freshmen and sophomores of the lower division and the juniors and seniors of the upper division. Although Mr. Floyd Herr of the State Department teases me for my insistence that I am primarily a dean of a large junior college, it is nevertheless a fact that the organization of the lower division of the College of Arts and Sciences, the division in which two thirds of our students are enrolled, performs the role of a junior college in every respect. We are not a community college in that our attention is not focused upon Lawrence and the immediately surrounding area, but, of course, there are many junior colleges who draw their students from a wide area. We assume, too, that all of our freshmen and sophomores have a baccalaureate degree as their final objective; that is, we do not recognize that in any formal way many of our students will terminate their college education at the end of the second year, although, in fact, many do. Except for our policy of disregarding the vocational needs of students who do not continue beyond the work of the lower division, we perform all of the functions and have all of the problems of the typical resident junior college.

Articulation with the upper division of the College is, of course, easier for us than it is for most junior colleges inasmuch as we can assume that most of our freshmen and sophomores who go on to a departmental major in the junior year will do so at the University of Kansas. On the other hand, a high proportion leave the College at the end of the sophomore year and transfer to upper-division professional schools, such as education, journalism, business, and nursing. Other students have in mind medicine, law, library science, or graduate social work at a later stage in the educational process.

The problem of sound articulation of the work of the freshman and sophomore years, which are both pre-professional and also concerned with general liberal education, is very great for us. Undoubtedly, the problem of articulation for the junior college dean is much greater. The separate junior college confronts the problem of students who intend to continue their education, not only in a variety of professional schools and departmental majors, but also at a variety of colleges and universities each of which contains its diverse majors and professional schools.

All of us are constantly confronted with the student who, voluntarily or involuntarily, changes his plans. One national study of junior college students indicates that at the time of initial enrollment sixty percent or more of the students intend to go on to a baccalaureate degree but, in fact, only twenty to forty percent of these students do continue. Apart from the students who change their minds about going ahead, there is the large number, too, who plan from the first to go ahead to a baccalaureate degree but who radically change their degree objectives as they begin to learn in college itself what the variety of opportunities is and who also learn more realistically to evaluate their own abilities and interests.

The only real solution to these many problems of articulation is counseling. Our experience here in the College is that counseling is of vast importance to our students if they are to move as smoothly as possible and with the minimum of wasted time and motion. For the reasons described above, it is completely obvious that the problem of counseling in most junior colleges is both greater and more difficult than it is here in the College of Arts and Sciences in the University.

We have discovered here during recent years that there is much that we can do to improve the quality of counseling. A good counselor requires an immense knowledge and good counseling takes time. The complexity and the time-consuming nature of the counseling process have led to the development of full-time, professional counselors in many institutions. A good counselor must not only know the full scope of offerings of the college in which he works, the full measure of opportunities and requirements in the upper division departments and the professional schools into which his counselees may go, the especially complicated problems of admission to medical school and other advanced professional schools where a careful selection of students is made by the admitting school, and a full knowledge of the records available concerning each student's previous academic training and his aptitude test scores; but this counselor must also have a sympathetic interest in students and some practical knowledge of the techniques of a good counseling relationship. The heavy burden that this puts on a counselor has led to a tendency to relieve individual faculty members of the responsibility for part-time counseling and the channeling of all these advisory responsibilities into the office of a full-time counselor. In every college of any size it is undoubtedly true that a large measure of the responsibility for counseling must be centered in the dean's office or in a counseling office. If the dean or a full-time counselor takes the full responsibility for advising, however, I am convinced that the job will be badly done.

The dean or the full-time counselor in any college of size has all that he can manage efficiently if he takes care of the most difficult or acute counseling problems and if he supervises and coordinates the counseling activities of all of the members of the faculty. The task of keeping the members of the faculty fully informed concerning all of the curricular activities and procedures of the college as well as all of the problems of planning that a freshman or sophomore confronts who intends to go ahead to one of a great variety of four-year colleges is very great. There are two points here that underlie my concern that the whole faculty be involved in the counseling process. The first of these is that this is one means of guaranteeing a knowledge of the whole educational operation of the college on the part of every faculty member, as well as guaranteeing that each faculty member is constantly exposed to a kind of student evaluation of the academic activities of the college. One cannot talk very long with a student in an academic counseling relationship without learning a great deal about both the students of the college in which one teaches and about the courses and instructors. It is also extremely good for members of the faculty to be very conscious of the longer range educational goals of the student and to be led to think frequently about the articulation of the junior colleges with the senior colleges or professional schools into which the students are to go. The second reason for insisting on the desirability of widespread faculty participation in counseling has to do with my concept of the counseling process itself. This process is slow and time-consuming if the counseling is good. Good counseling never consists merely of prescribing a program for the students. What is necessary is that the student himself finally make his own decisions concerning courses, instructors, curricula, and the continuation of his work in a senior college. He must make these decisions, however, in terms of the fullest possible knowledge of all of the choices available to him. Out of a full knowledge of the possibilities, he must make his own choices and take the responsibility for them. Just as some of the best counseling comes out of a spontaneous and informal relationship between a student and one of his teachers before or after a class, similarly the point must be stressed that the counseling process itself, even when it is formally organized, is an essential and important part of the educational process.

In one of the earlier lectures in this workshop, Professor Hobson made an interesting distinction between the college's curriculum and the student's curriculum. Here I think Professor Hobson was pointing out to us that the real curriculum, as far as the individual student is concerned, is what the student actively and deliberately chooses for himself to learn from the formal offerings of the college and the formal offerings of instructors in the various classes in which the student participates. The best and perhaps the only education for the student is that which he actively gets for himself, not the stated, formal program or offering of the college or the instructor. Similarly, in good counseling I think it is the adviser's responsibility and the junior college's to guarantee that the individual student has an opportunity to be fully aware of all of the choices and of all of the factors making some choices better than others, but that, in the last analysis, the student himself must be the one who makes the decisions. The counseling relationship in which the dean or a faculty member merely writes out a schedule of classes and hands it to the student is a completely inadequate one.

As Professor Hobson's definitions indicate, one can shift easily from a discussion of advising to a discussion of curriculum inasmuch as many of the basic factors exist in common. The junior college has the same problem in planning its course offerings that it has in planning its advisory process. The junior college students who are going on to a great diversity of majors in a large number of different senior colleges and professional schools have always made it difficult for the junior college to offer exactly the right courses for everybody. Before discussing the problems of the offerings in general education at the freshman and sophomore level, I should like first to point out some of the important changes that it seems to me are taking place in American society and in American higher education that are likely to make the job of the junior college easier as it plans its offerings of courses. There have always been changing fashions and styles of higher education to which we all sooner or later adapt our programs. Professor David Riesman has pointed out recently some aspects of this constant change and its effect upon various types of colleges. Professor Riesman uses the image of a snake in describing the changes that occur among the hundreds of American colleges. In terms of his analysis perhaps the image might better be a snake dance in which the various individuals in the chain represent different colleges. Some colleges are at the head of the procession developing new techniques and methods of meeting our educational problems. The styles set by these colleges are imitated by other colleges further along the line and one may well expect that a good many years elapse before new styles in curriculum make their way to those colleges at the tail of the procession. The striking aspect of Professor Riesmann's speculation is that, curious as it may be, fashions in American higher education change in such a way that it sometimes seems that the colleges at the head of the procession may be totally shifting away from a curricular pattern before it reaches other colleges down the line. In fact, sometimes, since there is a counter-cyclical movement, the colleges at the head of the line may be adopting processes which are just being abandoned by those at the end of the procession. Certainly, if we wish to be fashionable in our curricular innovations, it might be wise for us not merely to imitate those curricular modifications being made by the colleges just ahead of us in the procession; we would do well to look toward the head of the line and attempt to model our practices after the fashion of the colleges that are providing the most striking leadership. If it were possible, perhaps one might even do better than this by estimating the trends and changes in our society in such a way that we might look a few years ahead and perhaps move ahead of the procession in adapting higher education to society.

There are changes taking place in the United States which will be reflected in higher education. Mr. John Gardner of the Carnegie Corporation has been vigorously pointing out during the last year or two for the attention of all of us the radical influence on higher education of the vastly increasing industrialization and urbanization of our society. These changes are certainly taking place in Kansas at a rate which increases yearly. Leaving aside the demands at the national level for a high level of training and education, it is clear that in Kansas the trained and educated mind is becoming an absolute necessity if the state is to continue to grow and prosper. If Kansas in the next ten or dozen years becomes increasingly industrialized and urbanized, it is only fair to the junior college students of the present to give them the kind of training and education that will fit the changes that will take place in the next dozen or fifteen years.

Already, with the great increases in the percentage of youth who enter college, it is clear that we are entitled to expect an attitude of greater academic seriousness than was true in the past. There is apparently a widespread feeling that students are willing and capable of doing more than we have asked them to do in the past. Many people feel that a more vigorous challenge to our entering college students will evoke a ready response from the students.

The great increases in numbers of students and the difficulty that we all find in supplying them with adequate faculty and facilities are leading and will continue to lead to a general stiffening of standards in college.

The increasing emphasis on basic knowledge, particularly for the more able students, and the lessened emphasis on specific technical applications is a trend that is directly related to the fast tempo of change in business and industry, and the large development on the part of industry of company training programs. This concern for basic skills and subject matter takes the form of demands for more English, more language, more mathematics, and more basic science in the curriculum for both the high school student and the junior college student.

These changed emphases lead to a lessening demand for special courses for special groups and to an increased demand for the basic subjects of general liberal education. Of all ~~of~~ the institutions of higher education, it seems to me that the junior colleges in particular should welcome these new trends because the whole movement is in the direction of simplifying the problem of curriculum for the junior colleges. If the same rigorous mathematics courses are becoming equally satisfactory to the pre-business student, the pre-medical student, the engineer, the science student, and the student who is simply seeking a liberal education, obviously the organization of the curriculum in the junior college becomes an easier task than it has been in the past, and the problem of the junior college student as he goes on to a senior college is much simpler. My own prediction is that we are seeing merely the beginning of this shift to an emphasis on basic subjects for all students in the first years of college and that the tendency will continue to increase.

The entire faculty of the College of Arts and Sciences at the University of Kansas has been engaged in a vigorous discussion of the curricular requirements of the first two years. This discussion began in the fall of 1955 and it is expected that a general revision of all our basic requirements will be achieved sometime during the coming year. It may well be that the analysis that I gave above of some of the general changes that are taking place in higher education is wrong. If so, this curricular reorganization at the University has been moving in the wrong direction. If my guess is correct, on the other hand, the practical effects of some of the current changes taking place in our society can be easily illustrated by a brief description of the ideas which are governing our curricular reconsideration.

The following general principles were agreed upon by the faculty as a basis for the reconsideration of our requirements for all students during their freshman and sophomore years:

1. We should raise the standards of our requirements in skills areas such as English, language, and mathematics.

2. We should give greatly increased recognition to achievement through the use of exemption and placement tests.

3. Administrative simplicity should be achieved in the new requirements. The distribution requirements should be made simple, not primarily for the benefit of the College office and the Registrar's office, but on behalf of students and advisers.

4. It is not necessary that virtually every course in the College and in the Schools of Business and Journalism have an equivalent place in a liberal arts distribution requirement. The range of courses that may be used to satisfy the distribution requirement should be limited to a small number of key courses.

5. There should be more room for electives in the freshman-sophomore years than there is under the present rules. Approximately forty hours might well be devoted to satisfying basic skills and distribution requirements and the remaining one third of the student's lower division work left free for electives.

In its discussions and preliminary decisions it seems to me that the faculty has taken these basic principles seriously and has come up with some sound decisions. Tentative agreement has been reached on the following list of required courses for every freshman and sophomore: four courses in English composition and literature; a course in Speech; a course in Intermediate Algebra or its equivalent either in high school or in college; two semesters of enrollment in discussion groups in Western Civilization (a great books course dealing with the chief philosophical, political, and social ideas of the western world from the Renaissance to the present); one five-hour or two three-hour laboratory science courses chosen from a very restricted list of basic courses in natural science; a first college course in foreign language or equivalent placement or two years of high school credit in one foreign language.

In addition to these specifically required courses, during the freshman-sophomore years each student is required to complete at least fourteen semester hours of "principal courses" (apart from any of the required courses listed above) with at least three hours in each of three fields: the humanities, the natural sciences and mathematics, and the social sciences. In each of these fields a small number of "principal courses" is specifically identified. A "principal course" is one essential to an understanding of the conceptions and techniques underlying the respective subject and is ordinarily prerequisite to subsequent work in that subject.

It should be noted that, in addition to the basic requirements listed above, each student will also work in his freshman and sophomore years toward additional requirements as laid down by the school in which he expects to graduate. For example, students graduating with an A.B. degree from the College will confront additional requirements in language and additional distribution requirements in principal courses as well as the further requirements laid down by their major subject. A pre-business student will probably have a somewhat different list of freshman-sophomore requirements dictated by the special needs of the business curriculum.

It is my guess that these simpler requirements, although they are more rigorous for the student, will make the task of the junior college easier for those of its students who intend to transfer to the College or any of the upper-division professional schools at the University of Kansas. The emphasis on the same basic courses in humanities, social sciences, and natural science for all students regardless of their vocational objective should also simplify the problem of the junior college student transfering to the University of Kansas.

Even though there will still be wide differences in requirements among the various four-year colleges to which junior college students transfer, at least those students coming to the University of Kansas will find the transfer easier. For these students at least, too, there will be less problem in supplying recommended courses in junior college because of the emphasis on a few key, basic "principal courses" for all of the students coming here.

Because all of these new basic sophomore requirements are still tentative and must be acted on during the 1958-1959 academic year, I would welcome any comments, criticisms, and suggestions from any of the Kansas junior colleges.

Dean, College of Liberal Arts and Sciences
University of Kansas

## ADMISSIONS AND OTHER RELATED MATTERS

-James K. Hitt, Director of Admissions
and Registrar

Introduction. I was asked by the chairman of your committee to lead a discussion of the following topics as they may relate to junior colleges:

Enrollments

Testing

Scholarships

Advanced Standing

Admissions

Selective Admissions

I shall touch on each of these topics briefly, giving you a few personal opinions, some of them possibly controversial, and, I hope, thought-provoking. Following this presentation I hope you will discuss freely these areas, together with any others over which I may be able to provide some assistance.

Enrollments. The attempt to project future college enrollments has occupied the attention of many educators in the years since the war. Below is a table consisting of data extracted from studies made by Ronald B. Thompson of Ohio State University (College Age Population Trends, 1940-1970) in 1954, and by Worth A. Fletcher, of the University of Wichita in October of 1957. The table shows estimated numbers of college age youth in Kansas from 1950 to 1970, the numbers of students enrolled in all Kansas colleges and the numbers of students enrolled in Kansas junior colleges from 1953 to 1957.

| | 1953 | 1954 | 1955 | 1956 | 1957 |
|---|---|---|---|---|---|
| Estimated number of college age youth in Kansas (Thompson) | 117,912 | 116,312 | 114,963 | 112,255 | 110,870 |
| Numbers of students enrolled in Kansas colleges (Fletcher) | 30,860 | 34,807 | 38,846 | 42,526 | 43,906 |
| Numbers of students enrolled in Kansas junior colleges (Fletcher) | 4,163 | 4,781 | 5,337 | 5,294 | 5,336 |
| Percentage of students enrolled in junior colleges | 13.5 | 13.7 | 13.7 | 12.4 | 12.2 |

Estimated number of college age youth in Kansas (Thompson)

1958 - 109,826
1959 - 110,855
1960 - 114,949
1961 - 121,443
1962 - 127,159
1963 - 130,158
1964 - 132,646
1965 - 143,664
1966 - 150,932
1967 - 160,458
1968 - 163,020
1969 - 164,300
1970 - 169,274

You will note that from 1953 to 1957 the number of persons of college age in Kansas was decreasing, while at the same time the number of college enrollments in Kansas was increasing. This may be due to faulty projection, increased numbers of families moving into the state, or an increased proportion of Kansas college age youth enrolling in college. In any case, the number of students that will be enrolled in Kansas colleges by 1970 can be seen to be at least 150% of those enrolled in 1957; and probably it will be 200%, or more.

During the years from 1953 to 1957 the percentage of Kansas college students who were enrolled in junior colleges decreased very slightly. It is more difficult to estimate the total number of students that will be enrolled in Kansas junior colleges by 1970. One should be able to conclude that the numbers will range at least between 150% and 200% of those enrolled in 1957, and the range could be even greater.

Some of the factors that would seem to affect the numbers of students that will enroll in Kansas junior colleges in the near future include the following:

1. The cost of attending junior college compared to the cost of attending four-year college.
2. The ability of junior colleges to provide courses that are "respectable" in the eyes of the local community.
3. The ability of junior colleges to accommodate increased numbers of students who may wish to attend junior college.
4. The numbers of new junior colleges that may be established.
5. The numbers of existing junior colleges that may be abandoned.
6. The ability of four year colleges in Kansas to expand, both on present campuses and in establishment of new campuses.
7. The increase in nation-wide scholarship programs.
8. The ability of junior colleges to articulate their curricular offerings with those of four year colleges to which their graduates transfer.

There are many other factors that might be listed. It seems reasonable to conclude that Kansas boys and girls are going to want to attend college in constantly increasing numbers. The extent to which junior colleges can maintain or increase their share of the total college enrollment in Kansas depends upon factors which are not beyond the control of aggressive farsighted junior college leaders.

Testing. A test is normally used in an effort to measure some characteristic now possessed by the student, so that a reasonable estimate may be developed as to the future performance or behavior of the student. Areas in which testing is frequently employed include guidance, admissions, placement, and scholarship selection.

Students are tested nowadays for many purposes. Occasionally one encounters instances in which it appears that students are tested for no purpose at all, merely as a matter of habit. Testing is an expensive procedure and the maintenance and interpretation of test papers is difficult. Before tests of any kind are given to a group of students there should be a carefully considered plan, starting with the establishment of a good reason for testing in the first place. Assuming that a good reason is found for testing, the next step is to select a good series of tests, which will accomplish the desired purpose. Data secured from a testing program should be used, and used properly, that is, by personnel qualified and trained to interpret test data.

All of the above represents a professional task, which may be difficult for junior college personnel to perform without outside assistance. It may not be economically feasible for a junior college to attempt to employ professional personnel capable of doing this kind of job. This does not mean that junior colleges should not enter the field of testing. It does suggest, however, that the services of expert consultants should be secured to assist in analyzing the local needs for testing programs. Such professional consulting services are available at the University of Kansas and at other four year colleges in the state. Testing programs worked out in this way will not only provide better results, but also offer the opportunity of closer integration of the work of the junior colleges with that of the four year colleges.

The records of the office of the registrar in the junior college contain a wealth of data about student progress, as do registrar's offices of four year colleges. These data should not be overlooked as valuable sources of information regarding student progress. A good many problems normally considered solvable only by testing programs conceivably might be answered by reference to data already available in the office of the registrar.

Scholarships. The word "scholarship" has come to mean a variety of things in higher education, and in recent times scholarships have come in for a great deal of attention on the part of the general public, and particularly by students and their parents. A scholarship may conceivably include any one or more of the following elements:

1. Recognition of scholastic ability.
2. Recognition of manipulative or physical ability, other than scholastic (musical, athletic, and so forth).
3. Financial assistance for the student who cannot otherwise attend college.
4. Financial encouragement calculated to induce a student to attend a given college.
5. Financial encouragement calculated to induce a student to study in a given curriculum.
6. Financial encouragement calculated to induce a student to accept employment later with a given firm.
7. Financial assistance limited to the need of a student.
8. Financial assistance regardless of student need.
9. Financial assistance or recognition of students based on pure accident of residence in a given locality.
10. Financial assistance tendered in return for a stipulated amount of work for the institution.
11. A loan of money, to be paid back at a future date.
12. Publicity, which is considered to enhance the reputation of a given high school, or the personal prestige of the recipient and his family.

The number of scholarships available to students in the United States is increasing fantastically, as is the total dollar value of scholarships.

The recent expansion of national scholarships has so far served to attract more and more of the better qualified students to enroll in a selected few prestige institutions. This tends to rob certain localities of bright students who might otherwise attend college locally, since the financial consideration involved in going farther away to school is removed by the national scholarship assistance available.

The stated aim of national scholarships programs is to make it possible for bright students with limited means, who otherwise could not afford to go to college, to do so. It seems that this aim has not been particularly well met. Instead, bright students who probably would have been able to go to college anyway are now offered the choice of several scholarships where in the past they might have been able to secure only one. Since the nation-wide scholarships allow students to select a prestige institution, the disadvantage is two fold, pyramiding scholarships on students who would ordinarily have had scholarships anyway, and drawing them from their home localities to prestige institutions.

The federal scholarship program now in Congress, if approved and implemented, will probably continue to aggravate this trend, unless some sort of control is applied to require students to attend college closer home.

The stated purpose of the national scholarship program may still be accomplished, indirectly, if scholarships not accepted by those who have a choice of more than one scholarship are tendered to others farther down the line who might not otherwise have been able to qualify. However, the administrative time and cost involved in this shuffling of awards is great, and there is likelihood that some good students will still be left out, because of the desire on the part of every scholarship agency to make its awards to only the top students.

The growth of national scholarship programs constitutes a topic of serious concern for junior colleges, because such programs will have a tendency to attract the better students from your communities to prestige institutions, in the state and out of the state, leaving you with fewer and fewer "culls" who, being unable to qualify for a scholarship somewhere else, choose to attend junior college only as a last resort.

Junior college administrators should recognize this phenomenon, and attempt to develop a positive program to meet the challenge. There is probably nothing that can be done to head off or curtail the establishment of national scholarship programs. Instead, junior colleges must meet the situation by establishing positive programs of their own, if they are to remain in business.

The junior college has financial advantages which may be exploited. The chief financial advantage to a student attending junior college is the saving in board and room by living at home. At average dormitory rates one can calculate this advantage to be worth at least $600 for a school year. The difference in tuition between junior college and other institutions can easily amount to another $100 per year. Junior college people should not hesitate to admit that their local junior college offers a built-in scholarship amounting to at least $700 per year to any resident who chooses to stay at home and attend junior college.

Downtown merchants are well aware that students coming to a locality have a positive effect upon the local economy. They should be willing to attract students by contributing scholarship funds which could then be used to encourage students with limited financial means to attend junior college, but who without financial aasistance would not be able to do so.

The attractiveness of the prestige institutions is one which is difficult if not impossible to combat. The dollars and cents angle, on the other hand, should be examined carefully. Facts regarding costs of attending various institutions should be made available to students at the time they are making their choices.

Advanced Standing. The evaluation and transfer of junior college credits to the records of senior colleges as advanced standing credit is a phenomenon which is basically simple, but which is misunderstood by many. Between two accredited institutions, courses similarly labeled and covering approximately the same material are generally considered to be interchangeable. This means, for example, that a three hour course in college algebra in which the student made a grade of B is recorded on the records of the registrar at, say, K. U., as three hours of college algebra with grade of B, whether the student took the course at K. U., or at Parsons Junior College, or at Harvard. The previous college credit of a student entering a given institution who has attended college elsewhere is posted to the record of the new institution as "advanced standing" credit.

The major problems involved in understanding advanced standing procedures seem to come about in three ways:

1. A student takes courses at a junior college which are perfectly good courses, but which fail to fit into the curriculum he wishes to follow later. This can happen either if he changes his direction between junior college and four year college, or if he is uncertain while in junior college what curriculum he wants to follow later, or if the subjects required in the curriculum of the four year institution are not available in the first two years of work at the junior college.

2. The student takes in junior college certain courses of a terminal nature, which are not designed to fit into a curriculum of a four year college. Later he decides not to be a terminal student but to go on for a four year degree. Although he is probably well advised at junior college that courses of a terminal nature are just exactly that, he forgets this advice and complains that his junior college credits were not allowed.
3. The grades assigned at junior college are posted to his record of advanced standing credit in the four year college, but he feels that he does not get the grade points that he earned. This comes about as a result of the general practice that a student is expected to qualify for graduation by making at least a C average in all courses earned after admission. While this practice is well understood in its application to students entering as freshmen, the student entering with advanced standing credit does not understand, and feels that he has lost the grade points he earned previously. The purpose of the rule, of course, is to insure that the student maintains the same quality in his four year college work as he would have to maintain if he entered the four year college as a freshman.

The first of the three difficulties mentioned is the most serious. The second and third can be worked out by careful explanation, but there are often real problems involved in the failure of a student to secure full allowance for the time spent in a transferrable course, when it comes to applying credits toward his eventual degree. There is a dual responsibility in connection with this problem. Junior colleges must keep in continuous contact with four year colleges so as to keep informed of changing curriculums, so that they can modify their courses of study accordingly. This does not mean that junior colleges should copy slavishly every change made by every four year college to which they send students. The junior college has a right to establish its own course of study for the clientele which it serves. However, as four year college courses of study do change from time to time, junior college must make the effort to find out about these changes and make whatever adjustments they can in their own programs.

The four year colleges, on the other hand, should take into account the problems of the junior college when they arrange for programs for the first two years, and should wherever possible refrain from introducing courses of a highly technical nature into the first two years of work. This is a particularly difficult task in the professional schools, where more and more technical courses seem to be needed. When the junior and senior years become crowded and where long sequences are necessary, technical courses begin to appear in the freshman and sophomore years.

It would be very convenient if one could extend the theory of interchangeable parts from courses to years, so that one could say that one year of college would transfer as one full year in any curriculum, and that the student who had completed one year of college would need only to complete three more years in order to get a four year degree. While this is being done in some institutions, particularly in liberal arts, there still remains the matter of completion of required subjects, and as required subjects, even liberal arts, continue to proliferate, it becomes more and more difficult to establish the "interchangeable year" concept.

Any four year college curriculum, no matter how professional, should probably include at least two years of liberal arts work, in addition to its professional requirements. To the extent that this is true, junior colleges can continue as liberal arts institutions, with some assurance that their work will be transferred without loss of time for the student, regardless of the liberal arts or professional major that he intends to complete later.

As professional schools abandon their liberal nature by requiring less than two years of liberal arts, the junior college problem of transfer of credit without loss of time becomes that much more difficult.

The assumption of transferability of courses with similar labels and similar content places a heavy responsibility on the junior college. Junior college administrators and faculty must constantly strive to insure that the content of their courses lives up to the labels applied, so that if the student is allowed full credit for a course taken at a junior college, he has covered sufficient material that he is not handicapped by lack of content when he transfers to a four year college and enters the next course in sequence.

Admissions. Broadly stated, the task of any admissions office is to determine, from credentials presented by the student, whether the student has sufficient educational background and social maturity to attempt work at the college level. In Kansas, the high school diploma has been established, by law, for the state institutions, as being a sufficient credential to establish this presumption. This makes the task of the admissions officer very easy.

There are some who would claim that mere graduation from an accredited high school is not a sufficient guarantee of ability to do college work, and that more selective procedures should be adopted. We will have more to say about this in the next section, on selective admissions.

While it may be true that high school graduation is not sufficient college preparation for some students, it is also true that other students are ready for college before they graduate from high school. There is a good deal of ferment and discussion at the present time along the lines of early admission to college, advanced placement in college on the basis of exceptionally advanced work done in high school, and joint high school-college enrollments.

Early admission to college, that is, admission of students who have not completed high school is probably suitable in a very small number of exceptional cases. Where the student is obviously superior to his high school environment, where he has everything that the high school has to offer, and where the high school no longer challenges him, a good case can probably be made for admitting him to college. Care should be taken in such cases to insure that the student is socially and emotionally ready, as well as being intellectually ready for college work. It should also be recognized that such students are generally the outstanding leaders in the high school, and that when they go off to college before they are graduated, the high school loses substantial leadership among the student body.

Where it is possible, the high school curriculum should be expanded and enriched so as to continue to challenge these bright youngsters. The Advanced Placement Program of the College Entrance Examination Board contemplates the establishment in high school of courses taught at the college level. When students take such courses, and validate their performance by standard examinations, they may then be allowed advanced placement in their college work, and college credit for the work completed in high school. This type of approach is new to this part of the country, although it has been developed for several years in the East. The University of Kansas is presently at work with a number of selected high schools in setting up this kind of activity.

In junior colleges it is frequently the practice to allow the exceptional high school senior to enroll concurrently in junior college courses while completing the remainder of his high school program. This enables him, upon graduation from high school, to enter college with a small amount of advanced standing credit. This practice also poses some questions.

Is the student who is jointly enrolled in high school and junior college courses a member of the high school student body or of the junior college student body, or both, or neither?

Should the junior college more properly assist the high school to strengthen its program of instruction by offering advanced high school courses to challenge these exceptional students, in place of stealing these students, who are student leaders in most instances, away from the high school?

Probably the simplest solution is the joint enrollment in high school and junior college. It may not necessarily be that this is the best solution. Possibly the junior college would be of greater assistance to the community if it helped the high school to strengthen its own program.

Selective Admissions. When the number of applicants for admission exceeds the capacity of the institution, or when the institution wants to feel that it has a student body of higher quality that the general run of students who try to get in, or when both of these situations hold, as is generally the case, the admissions officer is faced with the problem of turning away some of those who apply. He decides to reject by a variety of techniques. After he has rejected enough applicants to bring the entering class down to the size and up to the "quality" which the institution can accommodate, those remaining are admitted. This is selective admission.

Selective admission has been practiced for a good many years in eastern institutions, and there is more and more talk in the middle west that selective admission may have to be practiced here. The principal justification seems to be limited facilities. There are also faculty members who would like to be assured that the admissions officer could, by selective admission, guarantee a higher quality of students for them to teach. I do not think that selective admission will ever be very popular in Kansas. We have operated for so long on the basis of unrestricted admission of high school graduates that I think our citizens have become accustomed to the idea that any Kansas boy or girl who graduates from high school is entitled to an opportunity to go to college.

You are probably familiar with Dean George Baxter Smith's study: "Who Would Be Eliminated? A Study of Selective Admission to College". In this study, Dean Smith analyzes the placement test scores of students who were graduated from the University of Kansas, and comes up with the finding that in the graduation class of 1955 a sizable number of those graduating would never have been admitted to K. U. had we restricted admission to those standing in the upper half of our entrance placement tests. It is true that many who score low on the placement tests fail to graduate. It is also true that a good many students who score high on the placement tests do not graduate either. Not many of us feel at this time that we are wise enough in predicting the behavior of human beings that we want to deny educational opportunity to students who desire that opportunity.

Selective admission, then, probably does not apply, in Kansas, to those already qualified by graduation from high school. If it finds an application at all, it must therefore be in the area of those not ordinarily qualified, that is, those who are not high school graduates. We have mentioned the admission of non-high school graduates earlier. Since admission of these individuals must necessarily be on an individual basis, here is where selective admissions probably best fits into the picture at this time.

In passing, we should call attention to the situation in California, in which the State University has practiced selective admission for a long time, while the junior colleges and the state colleges admit all students who graduate from high school. Those who succeed in junior college are then admitted to the State University, if they choose to go on with their work; the State University accepts at the freshmen level only a limited number of exceptionally well qualified students.

This plan apparently succeeds quite well in California. It has been mentioned as a plan which might be adopted in Kansas if the state colleges become so crowded that they are unable to handle all of those who desire admission. If adopted, it would seriously affect the numbers of students that would attend junior colleges. It would also affect every other topic that we have discussed in this paper.

I have attempted to discuss a few of the problems that I see as an admissions officer, with which I know that Kansas junior college personnel are also concerned. I feel that these are problems that should be discussed mutually between representatives of our institutions, because solutions that come out after complete full and free discussion are in the long run going to be a good deal more workable than solutions arrived at unilaterally.

# IMPROVING INSTRUCTION IN JUNIOR COLLEGES AND IN-SERVICE PROGRAMS

Jesse P. Bogue

We shall mention but not belabor the theme for the need of better teaching in the junior colleges. For you who are engaged in this enterprise this theme is obvious. In considering the functions of the junior and community colleges we often stress advantages of economy, their nearness to the people, and wider varieties of curricula to meet the life needs of communities and constituencies. It should become a popular slogan that junior colleges are doing the best teaching job of any institutions at the freshman and sophomore years. The function of excellent teaching should stand out among all others as the most distinctive.

Studies have shown that on the whole junior college graduates are doing about as well in upper-division studies as students who have attended senior colleges during their first two years. We can infer from this record that junior college instruction is satisfactory although there are obvious variations of quality in these institutions as is true in all types and kinds of schools. Our ambition, however, reaches beyond this record. We should not be content to accept this status in terms of teaching. We should bend every possible effort to exceed it and make it one of the driving forces in the future development of these schools.

## The Teacher as a Person

It goes almost without saying that the character and personality of the teacher are basic factors in his success. Professional attitudes and procedures, no matter how important they may be, cannot surmount serious defects in character or personality. There are personal relationships between students and teachers and the more so as institutions are smaller and contacts are closer. Students see the teacher, listen to his voice and often confer with him individually. A defective character or a negative personality will almost surely have repressive influences on students. Both character and personality play important roles in the element we call inspiration - the creation of the desire and will to achieve, motivation to excel, and a love for learning are all somehow tied in with admiration for the teacher. We would say, then, that one of the first steps for the improvement of teaching is to find men and women endowed with the best character and most attractive personalities. We are not necessarily speaking of men who are handsome or women who are beautiful in a physical sense although these qualities, other things being equal, would prove to be no great handicap. Rather we have in mind such qualities as sincerity, intellectual and moral honesty, and complete reliability. Personal grooming, carriage, posture, voice and expression which attract and please in place of repelling students are desirable characteristics. They can by thought be cultivated and improved. The genius may by his intellectual greatness overcome shortcomings in personal appearance which the average teacher may find embarrassing and a definite handicap.

Closely allied with character and personality is the thoroughness of the teacher's basic and professional preparation. There should be breadth to his learning as well as depth. By and large, the program of a liberal education should be the basis for professional studies. General education for understanding and appreciating the inter-relatedness of disciplines and for attaining liberty in mind and character would be to the distinct advantage of every teacher. Breadth of understanding and a grasp of the distinctive relationships among disciplines should help the teacher to avoid the critical pitfall of narrow and restricted view.

The teacher in a junior college, as in all other educational institutions, should know his particular subject and know it thoroughly. He should have a great fund of knowledge on which to draw at all times. Perhaps the good junior college classroom teacher may not need to pursue his subject as far and as deeply in some one restricted aspect as the research specialist, but he does need to have thoroughness and soundness of scholarship. As all of us are aware, difficulties have arisen in the preparation of junior college teachers at the graduate level because of the character of so many graduate programs. Fortunately, this defect is being slowly remedied in a number of universities with the realization that the kind of graduate work for the classroom teacher can be very thorough and at the same time deal with broader aspects of subject matter than that required for the professional researcher. Even so, a limited amount of research is good preparation for the junior college teacher because it gives him the experience and technique of exploration on the frontiers of the unknown.

Some original research by the teacher may assist him to attain greater independence in scholarship and to continue his studies consistently as a teacher. The really good teachers continue to study after their graduate days as conscientiously as they did during graduate days. Freshness of approach to subject matter and the inspiration of new facts and insights improve the teacher's presentations fully as much as they stimulate the student's interest in learning. The effective teacher comes to the college well prepared, and he continues to keep himself expert in the subject he teaches.

The improvement of instruction is a continuous and consistent process. In-service improvement is most significant whenever each teacher has the time, strength and will to study far more thoroughly than he expects of his students. The most significant and continuous improvements can be made, therefore, in proportion as teachers have teaching loads and other responsibilities which give them time to study their own fields and areas of instruction.

Moreover, we believe that an integral part of the junior college teacher's professional preparation is to know the philosophy, history, functions and aims, organization and structure of the junior college movement and its place in American education. Would an elementary or high school teacher be considered competent who knew nothing about elementary or high schools? Yet we have a good many teachers in junior colleges who know their particular subject but have little understanding of the kind of institution in which they are teaching. If this defect is present when the teacher comes to the junior college, it can be overcome by in-service studies and by summer sessions. We have heard in summer seminars and workshops from many teachers, and some who have taught for several years, this remark: "I am glad I came to this workshop because I never had the faintest idea of what a junior college was."

Every junior college should provide for a well stocked professional section in its library for the teachers. Extensive literature on the junior and community college movement should be available and kept up to date. Improvement of junior college teaching deals with methods of teaching at this level. We know the controversy between advocates who emphasize content and those who stress method. Both are necessary for the greatest effectiveness. The kind and degree of methods courses is probably the main issue. Regardless, however, of how much or how little attention may be given to methods courses, a few things are essential: The teacher should be well informed about the psychology and characteristics of the age group he is teaching. He should know the techniques of discussion and the best ways to secure maximum participation from students. He should know how to use audio-visual aids to the best advantage and explore the uses of television for his subject. I met an alert teacher recently who went to New York City to take a course in television to know how to use it to broadcast to the community and how to receive telecasts in the classroom. The junior college teacher must know how to teach his students how to study the subject he is teaching. These are some of the methods we have in mind and we believe that they are important.

And, in any event, if the teacher is to experience constant growth and improvement, he must have real enthusiasm about the subject he is teaching, be able to impart this attitude to his students, regard each one as an individual personality, and give him courteous consideration at all times.

## The Condition for Teaching

Let us agree, then, that we have a good faculty. What then must be supplied to make its members effective? The only reason for the school is to set the stage to the best advantage for teaching and learning. To do this the junior college plant must be designed, equipped and maintained primarily with the function of teaching in mind. You may think that this is a superficial observation, but if you could see some poorly arranged classrooms, lack of office space and antiquated equipment which I have seen, you might think otherwise.

I am happy to state that great strides are being made now in the planning and construction of junior and community college plants. This summer a special program will be held at Leland Stanford University on planning community colleges. Another will be held at Columbia University this coming October. I wish to call your attention to an article in the School Board Journal for January, 1958, entitled "Planning Community-Junior Colleges." You will see by its contents that the community college plant is not just another schoolhouse or set of college buildings in the traditional sense. One of the most encouraging observations I have been making during the past few years is the progressive development of adequate and distinctive community college buildings, designed especially for the functions of these institutions. By every token which I can see, there will be great progress made in this direction in the next ten years. I could well take the remainder of the evening to tell you of actions being taken along this line. If junior colleges are to be good, and they must if they are worth their salt, they can no longer be housed in makeshift, cast off, and abandoned elementary, junior or senior high school plants.

The administration and boards of control should play ball at all times with the faculty in respect to the best conditions and facilities with which to do the best job of teaching. There should be definitely stated and published policies regarding such important matters as salaries, increments of the same, leave of absence and for sickness, tenure, insurance and retirement benefits, and every reasonable arrangement to give teachers peace of mind and a sense of security. They should have as a matter of course benefits of freedom as persons and teachers commonly guaranteed to all citizens in the Bill of Rights. We would like to see financial arrangements developed whereby teachers would be on annual salaries. Under this system they could travel, study, teach, or engage in community services as conditions might warrant. It would make possible a continuous state of development and preparedness on their part. Whatever details may be worked out at institutions it is imperative that the administration should give the greatest possible attention to the creation of the best conditions for teachers to teach and students to learn.

Still another provision of administration is that of making sure that instructors are teaching in the fields for which they are best prepared. If it is an obligation for the teacher to make sure of his scholarship, it is an equal duty of administration to make certain that this scholarship will be applied where maximum results can be obtained. We realize that at times in smaller junior colleges teachers occupy settees rather than chairs. The uphill business, however, of instructors trying to do a good job in areas where they are not well qualified often ends in poor teaching for the student or failure and frustration for the teacher. Teaching loads cannot always be determined by classroom and laboratory hours. Other factors are the number of preparations, the nature of the subject to be taught, the number of teacher-student contact hours, amount of preparation needed, as well as extra-class responsibilities. To keep a faculty working cooperatively, smoothly, and as a team with a high degree of esprit de corps lays heavy demands on the administration to balance the loads of teachers as equitably as possible. Group feeling and enthusiasm is an important factor in the effectiveness both of the individual teacher and of the college as a whole. Administrators might study again some of the principles of group dynamics and apply them to their faculties. The degree to which the faculty as a whole pulls together with enthusiasm and cooperation toward the goals of the college reflects its values in every classroom. And the creation of climate and conditions to make this possible is a significant in-service improvement program.

## Self Studies of Teaching

How well are we teaching in junior colleges? To what extent have we made studies to evaluate our results? Some follow-up studies have been made in junior colleges by comparing grade standings of students in the junior college with their standings in senior colleges, subject by subject. We recommend this kind of study. Its assistance can be great in pointing more specifically to subjects and teachers who are doing good work and to those who are not doing so well.

May we call your attention to one of the most extensive research projects we know of that was carried out in the Office of Educational Research, University of Minnesota. The findings are available to any institution which may wish to study them. Evaluations have been made from student opinions from 443 classes with approximately 15,000 students. Profiles determined by student judgments indicate that outstanding teachers have the following characteristics to a high degree:

1. The subject matter was presented very clearly.
2. Adjustment of subject matter and presentation was well adjusted to the level of student comprehension.
3. Presentations were much more interesting than the students had expected.
4. The teacher showed that he possessed a thorough and profound knowledge of the subject he was teaching.
5. There was a friendly feeling between the students and teacher both in and out of the classroom.
6. Both texts and assigned readings were outstanding in value.
7. The time in the classroom was well spent.

8. The students' responsibilities in the course were well defined so that they knew just what was expected of them.

9. The students could get personal help either from the professor or his assistants.

10. Grading policies were exceptionally fair and just.

11. The amount of outside work demanded was fair and just for the number of credits to be earned.

12. Students would recommend the course to their friends whose interests were similar to their own.

13. The instructor was regarded as outstanding and stimulating in an all-round sense of the word.

The 14th question in the study deals with 25 items of student opinion which I have not listed. They may be helpful to any college desiring to evaluate the effectiveness of its teaching and to make improvements.

There are, of course, many kinds of procedures for in-service improvement of instructors and instruction. The pre-session and post-session college workshops in each institution are important. At the college in Vermont where I was president for 16 years, this was a regular part of every teacher's contract. College did not begin with the first class session and end with commencement exercises. It started with the pre-session workshop for one week and ended with another of the same length and teachers were on full salary for these periods of time.

Then, there were regular professional faculty meetings during the year. These were held each month. The program was determined by a committee of instructors elected by the faculty. Business matters of various kinds were considered in short weekly meetings so that the decks were clear at the monthly meetings for well-prepared programs of professional subjects. The programs during the year had continuity and were built around problems and issues of far-reaching concern. The value of these meetings can be measured by the fact that year after year the faculty voted to continue them.

Sometime ago, at the University of North Carolina I listened to an interesting report about an in-service study which was carried on by the teachers of the several sciences for a period of two years. These people realized that they had pursued their own particular disciplines of chemistry, physics, biology, or other sciences, but that they knew little about other sciences, especially about the more recent theories and developments. They came together and decided that once each week for a full year they would meet as a group to hear from each professor the essentials of his main subject and its most recent findings. They stated at the outset that if anyone did not intend to remain in the group until the work was completed, he should not enroll. The program continued for two years instead of one year as originally planned. Not only were those present interested in the subject matter, but also in the manner of presentation. The man who told of the experiment stated that those who were in it found it to be one of the most stimulating and profitable experiences of their teaching careers.

There are the inter-visitation programs in some colleges between various faculty members, each visiting the classes of others for observations and suggestions for improvement. At times, inter-visitations can be made between colleges for observations of teaching in one's own discipline. This is very helpful when a teacher may sit in the class of an excellent teacher.

In several states, extension classes are taught by professors from senior colleges and universities, both for teachers who are on the job and for some qualified persons in the community who might be interested to teach. The University of Texas has, for a number of years, conducted such classes in the junior colleges of the state. The American Association of Junior Colleges is now working on the possibility of organizing a special project for in-service education of teachers. The scheme in general outline is this: The program would be headed up by a university in a selected state. During a summer session, an outstanding teacher or staff member from each participating junior college would attend the university on a generous fellowship to take the course on campus which would be taught during the following sessions in the local colleges. He would be in charge of the discussions during the college year for the class scheduled to meet once each week. Kinescopes would be made of the presentations during the summer sessions at the university and then be used locally in the participating colleges for a part of the instructional program.

There would be collateral readings as well as text books, term papers and final examinations for those who wished to take the course for university credit. In other words, the plan is being designed to extend to a number of colleges much of the educational values which would be available if the professor of the university could be present in each college for each session of the classes, but which is not possible because of distances to travel and the simple fact that no man can be in two or more places at the same time. While we cannot state that this plan has been fully approved and that grants have been made to implement it, it has had considerable appeal to some who could make it a reality as an imaginative experiment.

## Conclusions

If we expect to make significant progress in the quality of instruction in junior colleges, there are a few things that can and must be done: (1) We must have an active program of recruitment of persons of outstanding ability, character and personality who will become our instructors. This need is too critical to be left to chance. (2) They must be encouraged and assisted to secure a broad and deep education as a basis for professional studies. (3) They must be encouraged and assisted to pursue professional studies for at least one year and preferably two beyond the bachelor's degree. (4) They must be placed favorably in the junior college with respect to their major teaching fields. (5) All physical facilities and conditions for teaching and learning should be the best possible and improvements should be continuous. (6) Salaries, increments, and all other fringe benefits should be favorable enough to bring teachers into the colleges and retain them in service. (7) Teachers must have time and strength as well as motivation enough to improve their understandings of their subject fields and the methods and techniques used in teaching. This is, in our judgment, the best single method of in-service improvement. (8) Other methods of in-service training which we have indicated should be considered and implemented wherever they may be feasible. (9) Carefully planned evaluation procedures should be carried out in every college to make sure that defects and weaknesses are corrected, points of strength improved, and to provide everyone concerned with confidence that we know what and how well we are doing our teaching.

# JUNIOR COLLEGE STANDARDS AND RELATED PROBLEMS

by

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Many of the group assembled here were active in the development of the standards and the guide for accrediting and evaluating Kansas junior and two-year colleges. However, a review of this activity may be helpful and will aid in providing background for the remaining members of the group.

In 1952 the Kansas Advisory Council on Education completed the restatement of the criteria for evaluation of institutions offering four or more years of higher education. The Council after some discussion decided to start a similar junior college project.

Fred Cinotto was named chairman of this committee and other members of the committee were Max Bickford, then Dean of the El Dorado Junior College and now Superintendent of Schools at El Dorado; K. R. Galle, Dean, Arkansas City; W. A. Black, Head of Department of Education, Pittsburg; W. H. Crawford, then Dean of the Dodge City Junior College and now in the state of Washington; Buford Fisher, Superintendent of Schools, Chanute; J. F. Wellemeyer, then Dean of the Kansas City Junior College and now retired; and myself.

This committee after much discussion and surveying of existing standards drew up a tentative statement. Rewriting of this statement was made a major item in the Pittsburg workshop with Dr. Jesse Bogue as consultant. The Pittsburg workshop included deans and classroom teachers from several states. Following the workshop the committee again reviewed and revised the standards. All junior colleges were mailed copies and further criticisms by administrators and teachers were solicited. Following a receipt of these additional suggestions the standards were printed at Independence and widely distributed. Similar procedures were followed in the development of a guide to use in the application of the standards.

The standards were adopted in 1954 by the State Board of Education, and the guide was completed in 1957. It will be noticed that a five-year period of planning preceded the scheduling of any evaluations.

It would appear that by this time everyone would be thoroughly familiar with and interested in the project. However, it was not until several schools became involved in developing their own evaluation statements that interest reached a high level. Although trial runs at Independence and at Donnelly College preceded final completion of the guide, demands for action did not result immediately.

The entire Kansas planning movement was paralleled by a North Central Association reassessment of its attitude toward the junior college programs. The junior college deans asked me to address the state meeting at Hutchinson on the Kansas Junior College program and problems, touching on the related problem of the North Central Association. As preliminary preparation I interviewed every responsible North Central official concerned with junior college accrediting and was given assurance that Kansas junior colleges would be evaluated in terms of their own objectives and in terms of the current philosophy of the community college if that is the objective of the local college. With that assurance I pointed out that junior colleges should reverse their position and seek North Central Association accreditation. Kansas City was already so accredited. I further emphasized that junior colleges in order to command prestige and respect must assess their own programs and be certain they are representing a sound plan of education. Such an assessment is essential to a strong demand for state aid. You can sell if your product is good. At the same meeting Fred Cinotto presented the evaluation guide for final criticism.

Based on the experience in the re-evaluation program today, I think our hopes and ambitions are being realized. People within commuting distance of junior colleges are sold on these institutions. The sphere of influence has expanded. Four-year institutions in turn have observed and measured the product and have become sold on its value. A meeting such as this one comes because a program has proven its worth. The period of opposition has ended and improvement is underway.

Originally it was expected that the academic year 1957-58 would be given over to approval of four-year programs preliminary to certification of teachers without transcript evaluations but on recommendation of the college officials. The enthusiasm of the junior college officials was such as to make a revision of that plan advisable. As a result primary interest this past year surrounded examinations of two-year institutions. Although we evaluated eleven institutions, two of these were examined on the basis of the four-year standards.

We experienced no trouble in finding assistants. Provision of travel and partial subsistence by Mr. Throckmorton and the legislature eased the matter of expenses. Local colleges paid only the cost of meals which was about $10.00 per evaluator. From five to seven people have been used in each evaluation. One of the most encouraging experiences was to have people from the colleges and universities accept invitations to assist and then in spite of the hard schedules followed and the necessity of making hard decisions say, "If you need me again I will be glad to serve. This has been a rewarding experience." The host institution has been most courteous in every instance. Avoiding of elaborate entertainment was requested and the request has been respected. We all enjoy entertainment but structuring procedure and hard work is necessary to evaluate an institution in two days and may I say including two very long evenings. We worked until at least 11:00 p.m. nearly every night during the evaluation and got home about midnight after late afternoon completion of the work in many instances. It may be that we scheduled too close, perhaps we should proceed more leisurely but in discussing this matter with several of the evaluators the more common response was that it would be easier, but they would prefer the tough schedule in order to shorten the time away from their own work.

Another procedure which I have questioned is if Miss Eileen Heinen, who is my assistant in college relations, and I should attempt to assist in each evaluation. Here again, after several consultations it was decided this plan should be followed. Procedurewise we initiated one plan which other accrediting agencies may copy. The National Council for Accreditation of Teacher Education will initiate a trial run soon. I refer to the use of a coordinator who also possesses secretarial ability. Miss Heinen is an Emporia business education major. She evaluates the business program and then serves as coordinator and secretary. Miss Heinen sits in on the general meetings to give her proper background for assembling the report. Immediately following conferences and observations, each evaluator dictates to Miss Heinen statements on the subject. Following the first writing of the report I edit the statement. It is then mailed to each of the evaluators. Each evaluator has full freedom to rewrite, amend, or strike-out any part of the report. Following this action the final report is written and sent to Central Duplicating, a centralized state agency, and sufficient copies are made to furnish one to each evaluator, the dean, the local superintendent, each member of the local board of education, the state superintendent and the members of the state board of education. A few extra copies are made for use in our office.

We have refused to print copies for general distribution although this has been requested on some occasions. If the local school wishes to distribute the material that is their privilege.

We are sorry for the lag between evaluation and supplying the final report, but when it is realized this work represents a substantially increased work load on our office you will understand the reason.

I think these evaluations have resulted in everyone connected with the junior college giving more serious consideration to what is important. I am confident the level of junior college study has substantially increased. I am certain the faculties of the various colleges visited have a much more keen sense of what they are trying to do and I am equally certain they are getting more firm and aggressive support from the deans and from the superintendents.

It was not unusual to find that the superintendent did not have the radiant enthusiasm for the program as did the dean. It was even more evident that boards of education had not thought seriously about what the community should expect of its college. The board members were frequently much more conversant on the athletic team than on the curriculum. However, in no instance did board members fail to exhibit much interest after they became involved in serious discussion concerning the curriculum. I think board members are beginning to see that much of the discussion concerning the essential nature of the athletic teams has been rationalization. I think they are beginning to see that athletics must be judged on the basis of their worth to the students, and not viewed as an essential recruiting device. I think this position is in the process of being verified.

It appears to me that the enthusiasm of the deans is finding an equal in the enthusiasm of the superintendents. At least the support is becoming excellent. The presence of so many of the superintendents at this meeting verified this observation.

We have talked much about the curriculum and its adaptation to local needs referring to other than the first two years of the college curriculum. As much as we may wish that this phase of the program was stronger we may as well recognize that as of now the local communities want a college and university parallel curriculum at the freshman and sophomore years. Where we find terminal and vocational work it is definitely the program of second importance in almost every instance.

In many instances the junior colleges are not naming their programs correctly. These programs should be analyzed in terms of whether they are a part of a four-year program of if they are preliminary to entering another curriculum.

More attention needs to be given general education and to the broadening of instruction. Library is not extensively used in many instances where it should be used. This may be another case of which comes first. However need and supply should come concurrently. Syllabi, outlines, and bibliographies need more attention. Most library holdings are far below what they should be. Library hours, help and facilities need improvement. All aspects of curriculum instruction and library need attention. We should aim at supplying all needs. Looking at averages does not provide the direction down the path of superior achievement.

The Kansas Public Junior College Association needs to take a look at their athletic management. There is little excuse for allowing control of athletics to slip away from the college and through traditional neglect allow it to get out of hand and become the possession of a group whose interest in the junior college is other than that of education. The superintendent, dean, and faculty athletic committee should have sufficient command of the program that no one need ever doubt proper motives and the justification of the program.

In general, most administrative procedures are good. A common point of vulnerability is found in the activity funds. This matter should be studied. Funds from many sources are finding their way into these activity accounts. Expenditures are open to serious question in many cases. All of the undertakings of the college should have the approval of the board. Financing should meet all legal requirements. The board should have sufficient confidence in the administration that legal arrangements need not abstruct satisfactory financial management. Officials of the college should not be embarrassed by annoying procedure in caring for incidential activity expenses. On the other hand college officials should recognize that a deep freeze or plush rug may be found in places other than Washington. It should be remembered that Kansas has finance laws, and that the school and all of the activities under the direction of schools officials as such are subject to legislative action.

There is not doubt about the desire of the college students to be housed separately. Based on schools visited the balance of evidence favors the separate junior college. Likewise there is no doubt that the public expects junior colleges to be able to summarize the costs of junior college on short notice. One person working with legislation made the statement that the state department of education had no business accrediting any institution without such accounting practices.

It is my recommendation that the junior college association develop a formula, arbitrary though it may be, to assist in allocating of expenses where the junior college is housed with a high school unit.

This should deal with matters such as space, enrollment, professional and non-professional service, materials and supplies, and library. There are other items which should be included also.

At the present time faculty qualifications though fairly good must be substantially improved. This will involve more attention to the matter and will call for higher salaries also. Colleges must give more attention to courses dealing with the junior college and should offer more work in junior college instruction. The pre-service programs of education offered by the colleges should emphasize a broad base of general education, at least one course specifically dealing with teaching at the college level, and the program should include both breadth and depth in the area of specialization. Although it is recognized there is value in research and in writing, local schools should not make talent or accomplishment in these two areas the main basis on which the quality of service will be judged.

In comparing enrollments today and in former years an inaccuracy may exist due to the kind of enrollment reported on the recent forms and in the guide. The present items are more meaningful and are more accurate but reflect lesser enrollment, since only regular day students are included in the general release of enrollment data.

Some additional general criticisms have been that the junior colleges have not given sufficient attention to the newer concepts of mathematics, to terminal general education or terminal vocational programs. Some schools have nearly abdicated all responsibility to meet needs of a rural community but recruit vigorously to attract the rural students to their school. More work is needed in community surveys, personnel service programs, and teaching loads are assessed on the basis of high school rather than college standards in many instances. If teaching techniques are better in the junior colleges it is because men like Ken Anderson, Bill Black, Don Davis, Finis Green, and the men at Hays and others have taught well. I am certain that state accrediting and certification requirements contribute to the encouragement of quality instruction. I know that the effectiveness of our junior college curriculum, our instructional activities, and the administration at local and state level is much greater because there is a Jesse Bogue.

# SUMMARY AND RECOMMENDATIONS

Jesse P. Bogue

We have been most fortunate in this workshop to have had the high professional services and leadership of the University of Kansas. These services and this leadership have been in keeping with one of the basic functions of a great university in the educational work of the State. Instead of spreading itself thin throughout the whole commonwealth with branches and centers for freshman and sophomore instruction, as is being done in a few states, the University of Kansas is giving outstanding professional leadership to the junior colleges. You in the colleges, in your turn, are developing your institutions with local leadership, orienting your programs of education to the unique needs and desires of the people in your communities, and providing financial support for your colleges.

Arrangements for the workshop have been ideal. Facilities for the meetings, living quarters, and all arrangements for dining have been pleasant and satisfactory. Such benefits have made it possible for us to work at full capacity for about nine hours each day. I would, therefore, urge you to accept the kind invitation of Dean Anderson and the University to return here next year for another workshop. Cooperation is a two-way street. Your response to the invitation of the University will advance further the close friendship between the two-year colleges and both this and other senior institutions.

I would also recommend that in every wise way possible you avail yourselves of the extension services of the University. You can, through your local facilities and personnel, set the stage for the University to extend its professional teaching to many people in your communities who should be given opportunities to upgrade and improve themselves beyond the sphere of teaching which you are supposed to provide. This type of in-service teaching is being offered now in several states by cooperation between the junior and senior colleges. I would recommend that the University of Kansas provide the services of an outstanding teacher in junior college education to teach courses in the School of Education and by extension for junior college faculties. Such an appointment will do two things: first, assist in providing you with good personnel for your staffs and faculties; and second, upgrade and improve the personnel you already have in your institutions. It is my understanding that Chancellor Murphy is sympathetic to this suggestion.

A professional educator in junior college studies at the University could provide for special services of several kinds, such as, for example, the closer articulation between the junior colleges and the University, promotion of junior college-University days at which times teachers in various disciplines might sit down with heads of departments in the University and work out together clearer understandings for improving cooperative efforts. I suspect that the extent of such services and the time when they may be provided will depend largely on your wishes and the degree of your efforts to cooperate with the University.

## Personnel of the Workshop

The University and the State Department of Education have made available outstanding leaders and professors who have contributed significantly for all who have attended. Even the Chancellor took time from his busy days to spend an entire evening session with us. I am always impressed by these extra services of professional educators who are willing to work long hours beyond the call of ordinary duty. If these services had to be paid for, as is the case with other types of professionals, in medicine, dentistry, the law, etc., the cost to us would probably be beyond our ability to pay.

The program will give everyone the list of persons who participated and it is not, therefore, necessary to repeat their names here. All who were supposed to be here were present, on time, and presented thoroughly prepared papers. These have been duplicated, bound into this single volume, and made available in sufficient number for good distribution. I wish to recommend that copies be placed in the hands of persons in your communities whose understanding and leadership can be influential and probably decisive in further advancing the extent and quality of your educational programs.

I believe that we can state emphatically that the objectives which I outlined at the opening of the workshop have been substantially reached during the days we have been together. I would recommend that all of us read, mark and inwardly digest the main substance of each presentation and see to it that every wise and prudent effort is exerted to implement each significant suggestion to: 1) take a good hard look at the needs of the people of Kansas as a whole rather than at the needs and ambitions of institutions as such; 2) examine the financial structure of the State and give unstinted support on a united front to the requirements of all legitimate educational institutions from the kindergarten to the universities; 3) review our educational offerings in the light of changed and ever-changing needs of our industrial and technological society to make certain that what we are doing now corresponds with the needs of our own day and of the days ahead as Kansas promotes its balanced economy of agriculture and industry; 4) re-examine our policies of admission to the junior colleges, our personnel services for the students, and the principles on which we may recommend our graduates for further studies in the senior institutions so that at every point they may be soundly carried forward in the best interests of all concerned; 5) reconsider programs for the production of outstanding junior college teachers in view of the claims that junior colleges are essentially teaching institutions for post-high school work for the first two years of education. I would suggest that every junior college might well organize its faculty for professional in-service studies to improve methods and techniques in teaching, and to do whatever is possible to bring each college up to maximum standards for accreditation. Minimum standards are not sufficient. We should strive for maximum standards in every department of the colleges' work.

## The State Survey

Your state legislature has wisely provided for a thorough survey of your educational facilities as you look forward to the tasks which must be done in the years ahead. Please give your unstinted efforts and fullest cooperation to every request of the persons who may be charged with the responsibility for these studies. They will have to rely heavily on you for much information. I would suggest that complete and reliable data be provided as promptly as possible so that the work of the survey committee may be rapidly advanced. Nothing is to be gained and much could be lost if "heels drag" in this undertaking. The time may be later even now than is good for the youth of the State of Kansas, because the floodtide of students is already at our doors.

Until the survey is made, I recommend that every junior college map out its territory for cultivation and hoe its own row right out to the end. Why not go out into the byways and the hedges, contact every promising student and his parents, and give them sound advice and encouragement to avail themselves of your educational offerings. The best way to convince the authorities of the State who hold the purse strings for education that you need and deserve equitable support for your work is by demonstrating that your services are highly significant for the total welfare of Kansas. No one gets money just because he claims that he needs it. As a rule financial support comes from the states or from independent sources because the work is deserving, and the work which is being done can be done better with additional support.

In seeking assistance from the State for financial aid, I would recommend that our own houses be in good order so that the most critical cannot with justice point the finger of accusation at any of our practices. I would consult the schools' attorney locally and if necessary the Attorney General of the State regarding practices in the building of budgets, the allocation of funds, the manner in which they are expended and reported so that sound fiscal practices and procedures may always be evident. I do not know enough about the internal financial operations of your colleges to make specific suggestions. I would, however, give no one a chance to state that my junior college was seeking state aid for the purpose "of having a football team." In general, all funds coming to an institution should be paid to the receiving officer, accounted for by him according to a budget adopted by the board of control, and paid out by him within the provisions of the budget. Any variations from this general policy should be fully approved by the board of control and in keeping with the laws of the state. Any scholarship, any grant-in-aid of any kind to students should be represented by income to meet the costs of scholarships and grants-in-aid. Athletic grants-in-aid should be called by what they are. They are not scholarships unless students warrant them by reason of academic standing. Each grant and/or scholarship should be fully represented by cash income for this purpose.

I believe that I would combine all fees into a tuition charge as a single payment by students to the college. There should be variations in these charges for in-district and out-of-district students within the state, and for out of state students. In this manner you will recognize the support provided by the local taxpayers, by adjoining counties, and in some respects even now by the State of Kansas. If and when you may receive direct state aid for the junior colleges, I would recommend that it be clearly earmarked for the junior colleges and not placed in the general fund. State aid should be used to improve your colleges, expand their services, and make them better for the benefit of the entire state.

## Legislative Recommendations

While I have not made a careful study of the enactments of your state legislature for junior colleges, I have heard enough to convince me that there are inconsistencies in the laws. They should be studied with the greatest of care by you with the assistance of legal counsel and recodified by the state legislature so that they may be easily understood and consistent throughout. Some parts of the laws are obsolete and out of step with good educational practices. For example, I refer to the provision that curricula for junior colleges shall be determined by the State Department of Education. It is the prerogative and responsibility of the administration and faculty of any institution of higher education to construct curricula, and the more so for junior colleges which are supposed to be responsive in their offerings to the unique needs of each local community. Professional help from the State Department of Education is highly desirable, but determination of curricula by the department is inconsistent with sound educational principles. This part of the laws of Kansas should be repealed.

Most of your junior colleges began post-high school teaching as a part of the "extension of the high schools." Largely for this reason your junior colleges have been legally recognized by the State of Kansas as the "extension of high school education." In view of the fact that more and more of your colleges are developing as identifiable institutions in their own right and are so recognized by the people of your communities, it would be well to seek legislation for the purpose of establishing them as junior colleges within the structure of the public school system, and under the general supervision of the State Department of Education. The junior high school is not legally an upward extension of the elementary school, neither is the high school a legal upward extension of the junior high school. Just so the junior college should not be the upward extension of the high school, but an educational institution in its own right. Close articulation with the high school, of course; operated under the administration of the public school system, yes; and there should be close articulation with senior institutions although they are not legal parts of the senior institutional system.

The laws regarding the tax levies for first class and second class cities should be revised to provide for a single general system of levies for all junior college districts on a flexible basis. There should be provisions for the same rates to be permissible in all districts by determination of the boards of control, or by the legal voters of the districts under certain unusual circumstances. Minimum and maximum permissible rates could be legally established by the legislature and the spread should be wide enough to permit local colleges to levy rates consistent with the fluctuating needs of the colleges. For example, while the law permits the Los Angeles Junior College District with its seven institutions to levy a rate of 35 cents per $100 assessed valuation in property taxes for junior colleges, the actual rate needed now is only 19.96 cents for the 1957-58 school year. The legal rate is flexible, however, and thereby provides for either an increase or decrease according to circumstances and demonstrated needs.

The laws of the state should be clarified and probably amended to permit the organization of large and comprehensive junior college districts. All territory largely served by the colleges should be included in the college district. Citizens in the districts should participate in giving financial support and in local legal approval for the organization and administration of the colleges. This is the democratic process and in keeping with the American tradition and way of life.

The laws should be clear regarding the manner by which new junior colleges may be established. They should provide safeguards against too many, or too small institutions from springing up here and there with little or no consideration for a well-planned system for the entire state. No state has as yet decreed that there shall be junior colleges. It cannot therefore determine that one or more shall be established and determine locations. Enactments can be passed to give authority to the State Department of Education to deny establishment of colleges which would not meet criteria for sound institutions. Some states have junior college commissions under the state departments of education one of whose duties is encouragement of junior colleges within the states where they are really needed. This provision makes possible the establishment of colleges in an orderly manner throughout the state in the best interest of all citizens.

The Chancellor of your University wisely stated that the general policy would be for major emphasis on graduate and professional education, second emphasis on upper-division education at the junior and senior years, and lesser emphasis on the freshman and sophomore years, although education for these first two years would be continued. This is a statesmanlike position. It is one of the definite trends of the time in many states. Therefore, as larger responsibilities are placed on the shoulders of junior colleges for university parallel education during the freshman and sophomore years, they must be well-financed, strongly administered and provided with the best possible faculties to insure that the quality of their work will meet the increasing demands for the constant upgrading of standards in all institutions of higher learning. Junior college students should attend these local institutions not merely because they are close to their homes, not only because they are more economical for them and their parents, but because they are good. I have never advocated junior colleges with the claim that they are "cheap." I seriously doubt that a claim of this kind could be established for instruction during the first two years in junior colleges compared to similar instruction in senior colleges if the quality of instruction is comparably good.

While one of our main functions in junior colleges is greater diversity of offerings, with special emphasis on the two-year occupational programs, there is no justification that these programs should be inferior in any respect. In fact, it is more expensive to give sound education in college-level technical-vocational education than in purely academic fields. If these programs are to be given by the junior colleges, and there is every reason that they should be, sufficient funds must be forthcoming for technical equipment and for outstanding teachers in these technical fields.

The main arguments which we may advance to the citizens of Kansas for equitable state aid for junior colleges must be based on the acceptance by the people of a total view for the welfare of the state as a whole. The wheat farmer cannot establish the claim that the economy of the state as a whole, nor even the economy of the Nation and the world, is no concern of his. His financial welfare is tied directly into the total economy of the state, the Nation and the world which makes use of the products of his soil. Indeed, I pay taxes in the State of Maryland directly to the Federal Government so that wheat farmers of Kansas may keep some of their fields out of production! I am glad to pay these taxes and a higher price for the bread my family and I consume because it is not only good for the wheat farmer and for Kansas, but for the general welfare of the Nation and therefore for my own personal well-being. Only as we can convince the citizens of the State that our services contribute significantly to the total welfare of Kansas, and in turn to the welfare of individuals within the State, will we advance the cause of more and better education at all levels, including junior colleges.

Kansas is far from being one of the poorer states financially. If Mississippi with the low per capita income can provide for a complete statewide planned system of junior colleges and find that it is a sound investment, surely Kansas can do likewise if there is sufficient will on the part of the people to do so. To bring the people of the State and their representatives in the legislature to accept this view requires a statesmanlike approach to the problem on a broad front in behalf of a wise and prudent expansion and improvement of education at all levels for all the people.

Perhaps your best formula for state aid at this time might very well be comparable to state aid for high schools. If your legislature would adopt this formula and appropriate the necessary funds to carry it out, I believe that you would be well on your way toward an equitable distribution of the state tax dollar. Moreover, there are independent and church-related junior colleges in Kansas. You cannot expect funds from either the state or its political subdivisions. You must cultivate your own constituencies for financial support. They are your first line of support, the people who created your colleges, and they should see to it that you are adequately financed whereby you may be strengthened to do the work the churches or other organizations expect of you. In my judgment, it is just about as justifiable in the light of Christian ethics for members of the churches to bring children into the world and then neglect them, as it is for these same people to establish educational institutions and then fail to support them. The legitimate claims of the church-related colleges should be evangelistically pressed home to the members of the churches, because you cannot have a good church-related college without a good college-related church.

As a final word, permit me to say that this workshop has been one of the best and most stimulating I have ever experienced. You have been lively in your participation, creative in your thinking, and apparently more determined than ever to return to your colleges and do more extensive and constructive work. The justification for these sessions and the issues we have raised and considered together will be determined by final outcomes in the years ahead in the quality and extent of education provided by your colleges. I shall always, as long as I live, have a profound interest in the junior college movement and shall give to it my best thinking and services. May I wish you well in Kansas and express my thanks here in the written word for your friendship and cooperation, and to Dean Anderson, Dr. Edwards, and Chancellor Murphy, as well as to all professors and other personnel of this great University for making this workshop a success.

# ENROLLMENT AND COST TRENDS IN HIGHER EDUCATION FOR KANSAS

by

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Several of the lectures given at the First Junior College Workshop touched on enrollment trends and expenditures. Although all of us know that enrollments and costs of higher education are rising, the magnitude of the increases may not be generally known, Therefore, it was decided to include some data on these topics in these proceedings.

Tables 1 and 2 indicate the percentage of college-age youth in residence in all Kansas institutions of higher education for the years 1900-1950 with projections to the year 1970. Tables 3 and 4 indicate the percentage of college-age youth in residence (undergraduate) in degree granting institutions in Kansas for the same years with projections to the year 1970.

The *Source Book for the School of Tomorrow for Kansas*, May 1957, is much more conservative regarding college enrollments in Kansas. It gives a figure of 47,675 students enrolled in undergraduate four-year and two-year colleges in 1970 and 58,071 enrolled in the colleges in 1975. The committee that prepared the figures indicated that its estimates were probably too conservative. This is evident since the total enrollment in all Kansas colleges as reported in the *Kansas Educational Directory* for 1957-58 indicates 41,428 students. The committee predicted 29,604 for 1957 and 29,850 for 1958. Actually, there were about 11,500 more students in Kansas colleges in 1957 or 1958 than the committee predicted. Not all of these 11,500 could have been graduate or part-time students. Therefore, the estimates appearing in Tables 2 and 4 appear to be fairly respectable. The prediction in Table 2 for 1965 is 57,609 while the actual enrollment in 1957-58 was 40,428. According to Dr. Worth A. Fletcher, Registrar of the University of Wichita, a total of 46,031 students are enrolled at the State's 47 institutions of higher learning this fall (1958).

## TABLE 1

## PERCENTAGE OF COLLEGE-AGE YOUTH IN RESIDENCE IN ALL KANSAS INSTITUTIONS OF HIGHER EDUCATION FOR THE YEARS 1900-1950

| Year | College-Age Population* 18-21 | Total Resident Enrollment* | Percentage Enrolled |
|---|---|---|---|
| 1900 | 118,734 | 5,344 | 4.5 |
| 1910 | 139,073 | 8,995 | 6.5 |
| 1920 | 126,056 | 14,149 | 11.2 |
| 1930 | 136,628 | 20,892 | 15.3 |
| 1940 | 128,685 | 27,816 | 21.6 |
| 1950 | 122,919** | 37,647 | 30.6 |

* Higher Education in the Forty-Eight States. Chicago: The Council of State Governments, 1952.

**College Age Population Trends, 1940-1970. American Association of Collegiate Registrars and Admission Officers, January 1954.

## TABLE 2

## PREDICTED TOTAL RESIDENT ENROLLMENT IN ALL INSTITUTIONS OF HIGHER EDUCATION IN KANSAS IN 1960, 1965 and 1970

| Year | College-Age Population* 18-21 | Predicted Percentage Enrolled in All Institutions | Predicted Resident Enrollments in All Institutions |
|---|---|---|---|
| 1960 | 114,949 | 36.6 | 42,071 |
| 1965 | 143,664 | 40.1 | 57,609 |
| 1970 | 169,274 | 43.6 | 73,803 |

* A Call for Action to Meet the Impending Increase in College and University Enrollment. American Council on Education, p. 9.

## TABLE 3

### PERCENTAGE OF COLLEGE-AGE YOUTH IN RESIDENCE (UNDERGRADUATE) IN DEGREE GRANTING INSTITUTIONS IN KANSAS FOR THE YEARS 1900 TO 1950

| Year | College-Age Population* 18-21 | Total Resident Undergraduate Enrollment* | Percentage Enrolled |
|---|---|---|---|
| 1900 | 118,734 | 3,342 | 2.8 |
| 1910 | 139,073 | 5,933 | 4.3 |
| 1920 | 126,056 | 8,761 | 7.0 |
| 1930 | 136,628 | 14,315 | 10.5 |
| 1940 | 128,685 | 17,475 | 13.6 |
| 1950 | 122,919** | 28,146 | 22.9 |

* *Higher Education in the Forty-Eight States*. Chicago: The Council of State Governments, 1952.

**See Table 1.

## TABLE 4

### PREDICTED UNDERGRADUATE RESIDENT ENROLLMENT IN DEGREE GRANTING INSTITUTIONS IN KANSAS IN 1960, 1965, AND 1970

| Year | College-Age Population* 18-21 | Predicted Percentage Enrolled | Predicted Enrollment |
|---|---|---|---|
| 1960 | 114,949 | 30.4 | 34,944 |
| 1965 | 143,664 | 35.7 | 51,288 |
| 1970 | 169,274 | 40.9 | 69,233 |

* *A Call for Action to Meet the Impending Increase in College and University Enrollment*. American Council on Education, p. 9.

Table 5 indicates the percentage of youth attending publicly controlled and privately controlled institutions of higher education in Kansas for the years 1900 to 1950. Table 6 gives the same type of information for degree granting institutions.

The public junior college enrollment in Kansas has increased through the years. In 1934-35, there were ten junior colleges enrolling 2,944 students. In 1957-58, there were fourteen junior colleges enrolling 4,176 students or an increase of 1,232 students. This is an increase of 41.85 per cent. If the same percentage increase is maintained, the junior colleges in Kansas could have about 5,200 students enrolled in 1970. The number might very well go to 6,000 students.

TABLE 5

PERCENTAGE OF YOUTH ATTENDING
PUBLICLY CONTROLLED AND PRIVATELY CONTROLLED INSTITUTIONS OF HIGHER EDUCATION
IN KANSAS FOR THE YEARS 1900 TO 1950

| Year | Total Resident Enrollment in all Institutions* | Resident Enrollment in Publicly Controlled Institutions* | | Resident Enrollment in Privately Controlled Institutions* | |
|---|---|---|---|---|---|
| | N | N | Percentage of Total | N | Percentage of Total |
| 1900 | 5,344 | 3,511 | 65.7 | 1,833 | 34.3 |
| 1910 | 8,995 | 6,345 | 70.5 | 2,650 | 29.5 |
| 1920 | 14,149 | 10,676 | 75.5 | 3,473 | 24.5 |
| 1930 | 20,892 | 14,899 | 71.3 | 5,993 | 28.7 |
| 1940 | 27,816 | 21,232 | 76.3 | 6,584 | 23.7 |
| 1950 | 37,647 | 29,709 | 78.9 | 7,938 | 21.1 |

* *Higher Education in the Forty-Eight States.* Chicago: The Council of State Governments, 1952.

## TABLE 6

### PERCENTAGE OF YOUTH ATTENDING DEGREE GRANTING PUBLICLY CONTROLLED AND PRIVATELY CONTROLLED INSTITUTIONS OF HIGHER EDUCATION IN KANSAS FOR THE YEARS 1900 TO 1950

| Year | Total Resident Undergraduate Enrollment in All Institutions* | Resident Undergraduate Enrollment in Publicly Controlled Institutions* | | Resident Undergraduate Enrollment in Privately Controlled Institutions* | |
|---|---|---|---|---|---|
| | N | N | Percentage of Total | N | Percentage of Total |
| 1900 | 3,342 | 1,939 | 58.0 | 1,403 | 42.0 |
| 1910 | 5,933 | 3,315 | 55.9 | 2,618 | 44.1 |
| 1920 | 8,761 | 5,295 | 60.4 | 3,466 | 39.6 |
| 1930 | 14,315 | 8,739 | 61.0 | 5,576 | 39.0 |
| 1940 | 17,475 | 11,505 | 65.8 | 5,970 | 34.2 |
| 1950 | 28,146 | 20,912 | 74.3 | 7,234 | 25.7 |

* *Higher Education in the Forty-Eight States*. Chicago: The Council of State Governments, 1952.

Table 7 indicates the percentage of students pursuing graduate work in publicly controlled and privately controlled institutions of higher education in Kansas for the years 1900 to 1950.

Table 8 indicates the per student cost for educational and general expenditures in Kansas institutions of higher education for the years 1930 to 1950. It is difficult to say what the dollar will buy in 1970, but the per student cost for educational and general expenditures in 1970 may well exceed $1,000.00. The total expenditure in dollars may be three times as much in 1970 as it was in 1950.

Table 9 indicates the cost for expenditures for resident instruction in institutions of higher education in Kansas for the years 1930-50.

The cost per student for resident instruction in 1970 may well reach $500.00. The total expenditure in dollars may be two and one-half times as much in 1970 as it was in 1950.

TABLE 7

PERCENTAGE OF STUDENTS PURSUING GRADUATE WORK
IN PUBLICLY CONTROLLED AND PRIVATELY CONTROLLED INSTITUTIONS OF HIGHER EDUCATION
IN KANSAS FOR THE YEARS 1900 TO 1950

| Year | Total Enrollment Graduate in All Institutions* | Graduate Enrollment in Publicly Controlled Institutions* | | Graduate Ernollment in Privately Controlled Institutions* | |
|---|---|---|---|---|---|
| | N | N | Percentage of Total | N | Percentage of Total |
| 1900 | 83 | 71 | 85.54 | 12 | 14.46 |
| 1910 | 189 | 157 | 83.07 | 32 | 16.93 |
| 1920 | 164 | 157 | 95.73 | 7 | 4.27 |
| 1930 | 671 | 664 | 98.96 | 7 | 1.04 |
| 1940 | 825 | 800 | 96.97 | 25 | 3.03 |
| 1950 | 1,811 | 1,759 | 97.13 | 52 | 2.87 |

* *Higher Education in the Forty-Eight States*. Chicago: The Council of State Governments, 1952.

## TABLE 8

### PER STUDENT COST FOR EDUCATIONAL AND GENERAL EXPENDITURES* IN KANSAS INSTITUTIONS OF HIGHER EDUCATION IN 1930, 1940 AND 1950

| Year | All Institutions | | | Publicly Controlled Inst. | | | Privately Controlled Inst. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number of Students | Expenditures | Cost Per Student | Number of Students | Expenditures | Cost Per Student | Number of Students | Expenditures | Cost Per Student |
| 1930 | 20,892 | $ 6,366,000 | $305 | 14,899 | $ 4,727,000 | $317 | 5,993 | $1,638,000 | $273 |
| 1940 | 27,816 | $ 7,970,000 | $287 | 21,232 | $ 6,370,000 | $300 | 6,584 | $1,599,000 | $243 |
| 1950 | 37,647 | $25,196,000 | $697 | 29,709 | $21,604,000 | $727 | 7,938 | $3,592,000 | $453 |

* Educational and General Expenditures as a major expenditure classification includes expenditures for the following purposes: administrative and general expense, resident instruction, organized research (separately budgeted), libraries, physical plant operation and maintenance, extension, and organized activities related to instruction. Taken from: *Higher Education in the Forty-Eight States*, Chicago: The Council of State Governments, 1952.

## TABLE 9

### PER STUDENT COST FOR EXPENDITURES FOR RESIDENT INSTRUCTION* IN INSTITUTIONS OF HIGHER EDUCATION IN KANSAS FOR 1930, 1940, AND 1950

| Year | All Institutions | | | Publicly Controlled Inst. | | | Privately Controlled Inst. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number or Students | Expenditures | Cost Per Student | Number of Students | Expenditures | Cost Per Student | Number of Students | Expenditures | Cost Per Student |
| 1930 | 20,892 | $ 4,332,000 | $207 | 14,899 | $3,322,000 | $223 | 5,993 | $1,010,000 | $169 |
| 1940 | 27,816 | $ 4,741,000 | $170 | 21,232 | $3,828,000 | $180 | 6,584 | $ 913,000 | $139 |
| 1950 | 37,647 | $11,515,000 | $306 | 29,709 | $9,464,000 | $319 | 7,938 | $2,051,000 | $258 |

* Expenditures for resident instruction are one of seven sub-divisions of educational and general expenditures. It includes the salaries of academic personnel, textbooks, office supplies, and clerical assistance directly related to instruction. Taken from: *Higher Education in the Forty-Eight States*. Chicago: The Council of State Governments, 1952.

Regardless of the accuracy of the predicted enrollments and costs for higher education in Kansas, it should be apparent even to the casual observer, that the magnitude of the job ahead is tremendous if we are to meet the needs of Kansas youth both quantitatively and qualitatively.